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THE HOME & THE FAMILY

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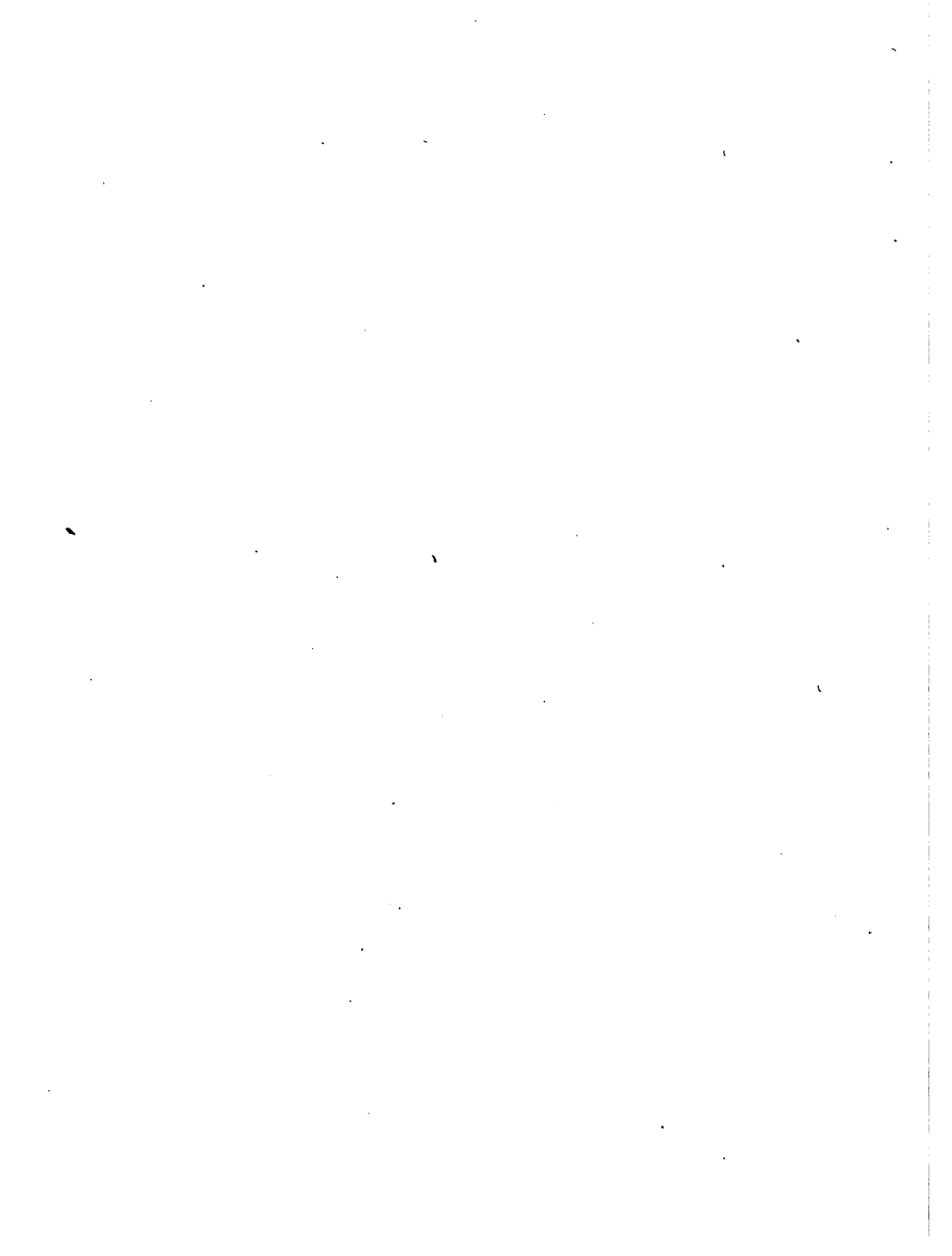
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THIS IS THE HOMEY, BRIGHT, CLEAN BEDROOM WHICH THE
GIRLS OCCUPY

THE HOME-MAKING SERIES

THE HOME AND THE FAMILY

AN ELEMENTARY TEXTBOOK OF HOME MAKING

BY

HELEN KINNE

PROFESSOR OF HOUSEHOLD ARTS EDUCATION, TEACHERS COLLEGE
COLUMBIA UNIVERSITY, AUTHOR OF "FOOD AND HOUSEHOLD
MANAGEMENT" AND "SHELTER AND CLOTHING"

AND

ANNA M. COOLEY, B.S.

ASSISTANT PROFESSOR OF HOUSEHOLD ARTS EDUCATION, TEACHERS COLLEGE
COLUMBIA UNIVERSITY, AUTHOR OF "FOOD AND HOUSEHOLD
MANAGEMENT" AND "SHELTER AND CLOTHING"

New York

THE MACMILLAN COMPANY

1917

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Set up and electrotyped. Published January, 1917.
Reprinted August, 1917.

Norwood Press
J. S. Cushing Co. — Berwick & Smith Co.
Norwood, Mass., U.S.A.

C. E. F.

PREFACE

THIS little volume is to be used in the elementary schools as a supplementary reader to the two textbooks, *Food and Health* and *Clothing and Health*. It is intended for the home people, too, as well as the school and to be used in those sections of the country where the home life is of the type described.

This volume "The Home and the Family" tells of some of the happenings at Pleasant Valley. One of the school trustees gives a cottage near the school and Miss James, the teacher, occupies it with two of the girls in turn. The decoration and furnishing of the Ellen H. Richards House, as it is called, the repairing of household furnishings, and methods of cleaning of the home are all described. The book also considers the care of the baby as the most important member of the family, and gives a simple lesson on the care of the sick. The final chapter of the book gives a series of lessons on personal efficiency, and the authors have grouped in a summary way the thoughts of the lessons on food and clothing, cleanliness and management, which contribute to better living.

The authors are indebted to Professor LaMonte Warner and the Department of House Decoration of Teachers

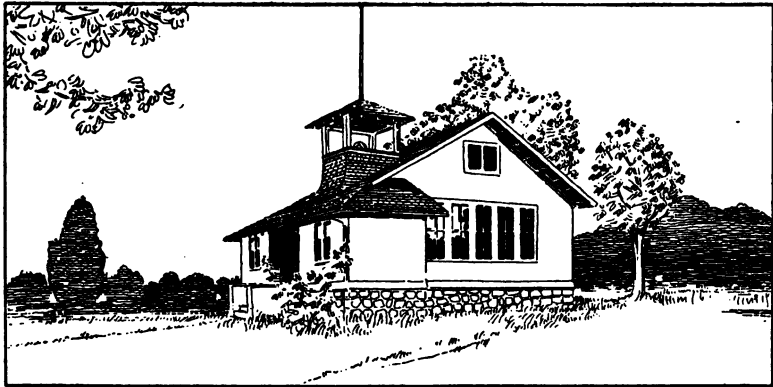
College for the four colored illustrations which so closely interpret the spirit of this book. The authors also express thanks to Mrs. Mary Schwartz Rose of Teachers College for her suggestions and careful reading of the lessons on the care of the baby.

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THE PLEASANT VALLEY SCHOOL

THIS is a story of the way in which the mothers and fathers, the teacher and pupils, and their friends in the township work together to make the broad valley in which they live truly a Pleasant Valley. The new school stands where the little red schoolhouse was built for those who are now grandmothers and grandfathers, when the town was first settled. The old building had become too small for all the young folk, but everybody loved the place and it was not until a fire had destroyed it that money was voted for larger and better housing for the school girls and boys.

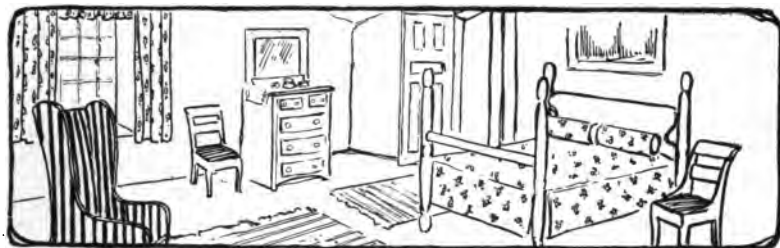
This small book can describe only a part of everything that is being done in and for the school, and for

the home people too, for you know that no town can prosper and no country be great unless the homes are healthful and happy, where all the members of every family work and play together. Do you not want to help too, in your home, and in your home town? Some of you have already studied what the pupils of the Pleasant Valley School learned in the books called Food and Health, and Clothing and Health. This story tells of the cottage near the school which was loaned to the pupils of the Pleasant Valley School, and of the many interesting things they learned there.



Little red schoolhouse.

THE HOME AND THE FAMILY



CHAPTER I

THE STORY OF THE COTTAGE LOANED TO THE PUPILS OF THE PLEASANT VALLEY SCHOOL .

SOME of those who read this story have possibly studied in the books, *Food and Health* and *Clothing and Health*, about the Pleasant Valley school and all that the boys and girls learned there about homemaking. You will be glad to know that all the townspeople in Pleasant Valley were delighted with the work in homemaking in the new schoolhouse. Mr. Roberts, the President of the Pleasant Valley bank, was so well pleased with the results both at school and in the homes of the Valley that he gave the house which you see in the picture (Fig. 1) to be used for homemaking work for the girls', and for the boys' clubs as well. Do you like it? The house is very near the school. Miss

James the teacher helped the girls and boys to furnish it. The picture (Fig. 2) shows how the house looked before Mr. Roberts had it remodelled. It is one hundred years old.

This book is the story of how the house was decorated and furnished, and of what occurred in it. It was



Courtesy of R. J. Planien.

FIG. 1. — The Ellen H. Richards House of Pleasant Valley.

named for Mrs. Ellen H. Richards, the great and good woman of Boston, Massachusetts, whose friends are found all over the world, and who helped to develop the teaching of home economics everywhere. This book tells how it happened that the girls chose her name for their house.

In this house at Pleasant Valley there are five rooms and a bath, besides a small hall entrance. On the first

floor the living room is situated on one side of the hallway, and on the other the dining room. The kitchen and pantry are adjoining the dining room. Upstairs are the two bedrooms and the small room which Mr. Roberts had arranged for a bathroom. Mr. Roberts is one of the School Trustees; and the Trustees asked Miss James to live at the cottage because there is no



FIG. 2. — The Ellen H. Richards House before it was remodeled.

other suitable place near the school. Mr. Roberts thinks that the girls will enjoy occupying the second bedroom occasionally in turn.

What do you think the girls decided to do in order to earn some money for the furniture? They gave a supper at one of the Pleasant Valley churches and invited all the people from the other churches to join (Fig. 3). Mrs. Allen, Mrs. Stark, and Mrs. Oakes, as

well as Mrs. Alden and some of the other mothers, are much interested in the cottage. All helped the girls to make the evening a success both socially and financially. In addition to what the girls were able to buy, Mrs. Roberts provided some of the necessary furnishings, and the parents loaned articles, so that the home is attractively and comfortably furnished.



Courtesy of Doubleday, Page & Co.

FIG. 3. — The church where the supper was held.

Miss James is very happy to have the cottage, and says that homemaking is a worth while study to have at school, because girls must be taught about the right ways to make their homes healthful and attractive, as well as about other things. There are many things to know in order to live well and happily in one's home. Would you like to learn how? The studies connected with homemaking are all interesting ones. Miss James started the work with the study of the decoration and furnishing of the cottage. It was not a new house, but paint and varnish have made it fresh and clean ; and knowing how to combine

colors and furnishings has helped make it attractive. All this had to be done inexpensively too; for, after all, the girls had very little money to spend.

But some of you may not know the secret about Pleasant Valley, and may ask *And where is Pleasant Valley?* Perhaps you asked this question when you looked at the first page. Pleasant Valley is your own home town; and, though it has really quite another name, it may still be Pleasant Rivers, or Pleasant Hill, or Pleasant Fields, or Pleasant Plain. Why not? In this wide country of ours, there are many forms of natural beauty; and, even in the dry sections where trees are grown with difficulty, there are still the far reaches of the plains and the beautiful effects of cloud, sunrise, and sunset. If your own town is ugly and unhealthy, it is not Nature's fault, for the beauty and homelikeness and the healthfulness of any place depend upon its inhabitants. Even the simplest and plainest village or country-side has one kind of beauty if it is kept perfectly clean, and it costs but little money in many places to plant trees and shrubs and keep the grass green.

You must see, however, that it is something more than beauty in the things about us that we are to study together. You boys and girls in your school are to be the men and women who will make the homes and the town the best possible places for successful and happy living. Do you realize what it means to be citizens of a great commonwealth like this of our

United States? Do you understand the meaning of the word "commonwealth"? It is a good old word that means a land where all the people share everything alike and work together for the good of all. We can not succeed in doing this unless we begin in our home and in our home town. More and more must our country stand for democracy for ourselves and the whole world, and you must bring to the problems of the future bodies strong and clean, and strong hearts and minds.

LESSON I

WHAT CAN BE DONE TO MAKE THE BEDROOMS COMFORTABLE AND ATTRACTIVE? THE BEDROOM WALLS AND FLOORS.

What do you think was done to make the bedroom to be used by the girls a pretty, comfortable, and healthful room in which to live? Let us study to-day about the walls and floors.

Have you ever thought what you could do to make your bedroom more attractive? It is, of course, easier to start from the beginning and to plan it the way one wishes; but every girl can improve her room gradually, and change things about, until she has made it as attractive as possible.

The girls of Pleasant Valley School visited the cottage with Miss James and studied the bedroom to be used by the girls. Miss James says a bedroom is primarily a place for rest. It should have only the most simple furnishings and those which can be kept absolutely clean. An ideal bedroom has good ventilation and

sunlight. It should be comfortable as well as pretty, with a good bed. Since one third of life is spent in bed, one cannot be truly efficient unless one rests well; therefore, one should think carefully in planning for the right kind of bed furnishings as well as bedroom articles of furniture. Sometimes it is necessary to use the bedroom as a combination bedroom and study. Then, in furnishing it, one must think of a comfortable place for writing and reading, as well as for sleeping.

The wooden floors of the bedrooms were rather rough, and the woodwork around the window frames and panes was dirty, although once white. The doors also showed signs of stain, ill usage, and neglect. It was a problem to know how to make it all look well. There are four windows in the bedroom to be used by the girls (Fig. 4). The circulation of air is good, as one window faces south, one east, and two west.

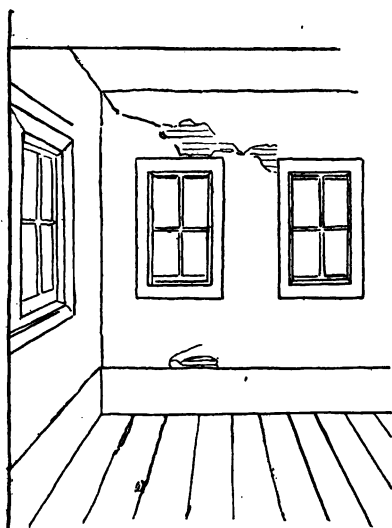


FIG. 4. — The bedroom looked very much like this before the boys and girls started to clean and repair it.

The first problem was the floor. Hardwood floors are most beautiful and hygienic in any room, but this

floor was only rough boards of old timber. The girls suggested that a painted floor is next best to a hardwood floor of oak or maple. Yellow pine makes a good floor too, if one cannot afford hard wood, and if one cares to lay a new floor over the old boards. Miss James said she would help the girls to order the paint for the cottage; and some of the boys, John Stark, John Alden, and others, said they would help to put it on. Some of the cracks and holes in the floor were filled in first, and then a stain and varnish or paint of suitable color was put on to make it fresh and clean. It is always sanitary to have rugs in a bedroom, and bare floors can be kept clean easily. This saves time as well as strength in cleaning. The girls thought that the woodwork of doors and windows should remain white, but Miss James said we can tell better about that too when we consider the room as a whole, and study the lighting of it. The old white paint is at least a good foundation, and cream or gray can be put over it. Miss James told the girls that the floors and the walls are the background for the decoration of the room, and that the final effect of furnishing will depend on how these are treated in color, and what kind of rugs are used. This is a particular point to remember. Miss James had samples of colors for paint, woods, and finish which she had sent for. Manufacturers of paints and varnish will tell how to treat all kinds of floors to best advantage.

Before deciding about the color of the floors, the

girls had to think of the color of the walls too. Neutral colors are good for the floors, as they are apt to harmonize with the furnishings. The floor color should be selected, however, with reference to the wall color. The girls studied the walls before deciding about the floors.

Miss James says the walls should be studied in relation to the light, the size of the room, and its use. This bedroom has light from three sides, and is oblong in shape. Painted walls are always the most sanitary. The walls of this house are old, and there were a number of wide cracks in the plaster. The girls decided to fill in the cracks in the walls and ceiling with plaster and to ask the boys to help kalsomine the ceiling. This will truly cleanse too. Miss James thinks that the pure white kalsomine is not always attractive for ceilings, as it is often such a contrast to walls, and does not harmonize with them. A little yellow ochre put into the kalsomine will give it a creamy color which will harmonize with side walls and not make so sharp a contrast between wall and ceiling, but rather gradually merge one into the other. Mrs. Roberts, while visiting the class one day, told the girls that one should expect the darkest tones under foot at the floor and a gradation of color up to the ceiling, which should be the lightest value. After one decides about the color of walls, one can tell better whether the ceiling should be cream or white. On account of the cracks, Miss James thought the walls could be covered with a

simple, pretty wall paper after the cracks were filled in. As there is plenty of air and sunshine in this room to keep it dry and sweet, the question of sanitation is easily handled. In some rooms wall papers decay and become infected with germs, so that paint which can be scrubbed with soap and water, is better. A bedroom should, however, never be a damp place. Dampness will cause illness. Which do you think will be best for your own bedroom if you decorate it? Paper is very common for wall covering and is, as a rule, cheaper than paint. If paper is used, care must be taken to keep it clean by rubbing it down occasionally with a clean cloth to remove dust; and, after a certain period of use, it should be changed.

The girls wondered which paper to select from the book of samples. Miss James told them the sunlight of the room or location of the room as well as one's particular preference should help one to decide. Do you know that, when there are only a few windows and the room is rather dark or gloomy, a light wall color of cream or yellow or pale yellow-green or other light color with white woodwork will produce a light effect? Have you tried this at your home? Do you know that this is due to the reflection of light as well as to the decoration? Where would the light be reflected from? It enters the room from the windows at the sides and strikes the walls and ceiling which reflect the light. The girls soon discovered that their bedroom at the south end of the house must be treated in a different way in

relation to color from Miss James' bedroom located at the north end. On the north side one needs warm colors because there is not so much warmth and light from the sun. Yellow, in different values, or colors with orange or yellow in them, called terra cottas, tans, golden browns, buffs, etc., can be used according to the purpose of the room. When there is plenty of sunlight, as in the bedroom with southern exposure to be used by the girls, then the cool colors look the best, — the light values of green, blue, lavender, gray, and tan, although these fade more rapidly. Bright yellows or reds are not comfortable to live with in a sunny room, and greens or blues are cold and uncomfortable in a room with little light or with light from the north. Have you studied your bedroom at home to see what color can be put effectively on the walls? Have you discovered why it is you feel cold or uncomfortable in some rooms and have a restful happy feeling in others?

After Miss James' talk, the girls decided that in the sunny south bedroom a wall paper with blues in it would look well. They selected one with light blue, gray, and white tones predominating. Blue is a cool

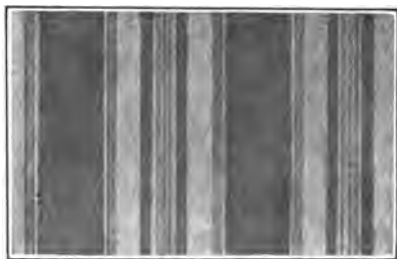


FIG. 5. — This is the wall paper which was chosen for the girls' room. Why do you like it?

color, you know. The picture (Fig. 5) shows the pattern. It is often difficult to find good designs in the inexpensive papers.

Miss James asked about the woodwork, "Should it be painted white or some other color?" Marjorie



FIG. 6. — Marjorie Allen — one of the Pleasant Valley girls.

Allen thought that light silver-gray would be very pleasing for the woodwork, and a darker gray paint for the floor, to give the gradation of color. After discussion it was decided to use a light gray paint for the woodwork in the sunny room and to have the woodwork white in Miss James' bedroom which is not quite so light.

The ceilings are low in the bedrooms. Miss James says when that is so borders should not be used, for they make a room seem low. Stripes in the paper will emphasize the height of a room. The blue and gray paper selected had rather an indefinite stripe. Can you think, then, what one might do to make a high ceiling look lower? The height can be broken by carrying the color of ceiling down on the side walls or by using a border with a picture molding below. Sometimes one can drape the windows so as to

give a broad effect and so break the height, or one can use pictures of such a shape that horizontal lines are made on the wall. Of course one avoids striped paper in such a room. Who can tell about the color of the ceiling? With the light blue and gray paper, and light gray woodwork, what color do you think the girls chose for the ceiling? Jane said she thought the white kalsomine would be most suitable, although Miss James thinks a little yellow ochre should be put in to relieve the deadness of the white.

Did you think there were so many things to consider in selecting the colors for the woodwork, floors, and walls of a room? Do you not think this cottage bedroom must look attractive with the ceiling and wall cracks filled in, the ceiling kalsomined, and the woodwork painted a light, clean gray? The wall covering is of the pretty blue and gray paper. Wouldn't you too like to sleep in this room sometimes?

How about the floor? What color do you think it was painted in order to form a good background? Do you think this one should be painted dark gray or a light brown to harmonize well with the rest of the room? Remember this is a very bright sunny room. Do you think the girls and boys of Pleasant Valley School were able to fill the holes in the woodwork with putty, and the cracks in the floors with filler, before the paints were put on? All this helped to make the finished effect more pleasing. To-morrow we shall

study about the necessary articles which the Pleasant Valley girls thought should be put in this bedroom in order to make it a truly comfortable place.

EXERCISES AND PROBLEMS

1. Think of some bedroom you know. How do the windows face, to west or east, or south? Write how you would change the color of walls, floors, and woodwork if you were able to do so.
2. Why are floors usually darker in color than the ceilings?
3. Do you like the bedroom planned by the Pleasant Valley girls? Would you like to live in it? Why?
4. Give some suggestions for keeping the bedroom healthful and sanitary. Why is it important to keep it so?

LESSON 2

THE ARTICLES OF FURNITURE FOR THE BEDROOM

What articles are really necessary in order to furnish this bedroom comfortably?

Grandmother Allen of Pleasant Valley told the girls that she had not forgotten how to weave on the hand loom and would make two rag rugs for each bedroom if the girls would sew the strips for the rags. Such rag rugs can be bought inexpensively, but not always of the color one wishes; so the girls were glad to have Mrs. Allen's contribution of her own hand work, and to have an opportunity to choose their own colors. She is very much interested in all that the girls are doing, and anxious to help. The girls thought that rugs of dark blue and white or dark blue and gray

and white would harmonize, for again the darker tones must be used on the floor of dark gray. A little yellow might be introduced in this border if desired for variation. Grandmother Allen told the girls she has not forgotten how to dye cloth, and helped the girls to dye the rags one Saturday at her home.

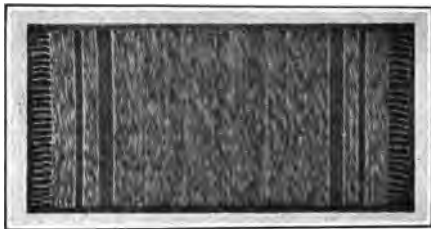


FIG. 7. — Rag rugs made of cotton can be bought for very little. One 27×54 inches costs about \$1.25.

These are the articles which the girls thought were quite necessary for the girls' room, if used by two girls :

2 single beds, and furnishings	2 comfortable chairs
1 bureau	1 desk chair
1 chiffonier, or chest of drawers	2 rugs
1 desk table	1 scrap basket
1 shelf for books	curtains
a closet or place for hanging clothes	1 lamp

The arrangement for hanging clothes. As there is no closet in the girls' bedroom they decided to ask the boys to put up some brackets and a shelf, in one corner of the room. The shelf was made the width of a coat hanger and put up on brackets. Under the shelf the boys suspended a pole with screw eyes and picture wire, and placed one end of the pole in a socket against the wall to keep it firm. This made a very good place

for hanging the girls' clothes (Fig. 8). They provided several hangers by using pieces of barrel staves wound with cotton cloth. A piece of wire around the center for a hook answered. Hangers keep the clothing in



FIG. 8. — The corner closet space looked like this.

good order. Another shelf about twelve inches from the floor, directly under the upper one, was found very useful for shoes. Miss James announced to the boys that she wanted one in the closet in her room, for it will keep her shoes away from the floor. A pretty curtain of blue chintz to harmonize with the wall paper was gathered just a little, with a heading to stand up around the edge of the shelf; and gilt-headed tacks were used to hold it in place along the front and end of the shelf.

The curtain reached nearly to the floor. Several of the girls who have no closets in their rooms at home but simply hang things on nails or hooks, said they are going to plan such a corner storage space in their rooms, so as to protect their clothes from dust.

The bedroom curtains. Miss James thought that chintz or cretonne of the same kind as the curtain would look well at the windows. The picture (Fig. 9) shows how a half width of cretonne can be used at each side of the window. It is just full enough. A tiny hem can be used at the edge which is not selvedge; or one can make one turn to the right side on the edge at the middle of the window and bottom of curtain and stitch flat over the turned edge a narrow guimpe, which costs about two cents a yard. The finish is neat, then, on both sides. Do you know the cost of chintz or cretonne? Inexpensive patterns are often pretty and can be bought for 12 cents a

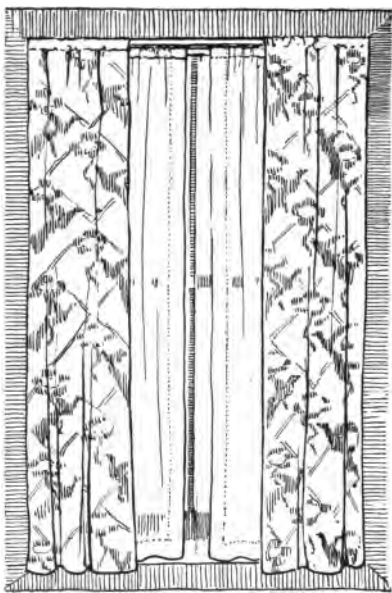


FIG. 9. — This shows how half a width of cretonne can be used at the sides of the window.

yard, although one can pay 25, 50 cents, or even more per yard. When the width is divided, the over-curtaining really costs only half that price per yard.

The girls had so little money to spend that they decided that cheese-cloth curtains next to the window sash would be most useful. They hang in soft folds

and are easily washed. Miss James suggested that a one-inch hem when finished, along the center edges and across the bottom, with or without the narrow guimpe edge for a finish, will be very pretty. Some girls wished figured Nottingham curtains, but they learned how unsuitable and clumsy they are for bedrooms and how difficult to wash and stretch. Dotted swiss, brussels net, scrim, or madras are all suitable and pretty. Miss James had samples of all to show, but the girls soon discovered how attractive the simple cheesecloth curtains could be made, and how inexpensive and suitable they are too. Cheesecloth costs from 8 to 20 cents per yard. One can get a good enough quality for this purpose for 12 cents. The other materials, scrim, nets, etc., cost from 15 cents to \$1.00 per yard. Look at some samples and study the prices. Would you be sorry to use the cheesecloth for your bedroom? Perhaps you can afford a 25-cent swiss; it is very pretty and suitable too. Curtains are for decoration to soften the lines of the wood casings, and for privacy in a bedroom. The over hangings of chintz are a matter of taste. Anything which catches dust is unsuitable in a bedroom, unless it can be removed often and shaken out. Think of this always as you furnish your bedrooms.

Hanging curtains. The simple ways of hanging curtains in bedrooms are best (Figs. 9, 31). Simple brass rods can be used, or, if one has no rods, the curtains may be strung instead on strong wire or cord

between two nails. The straight lines of the curtains, with or without a valance, are most pleasing. You can see a valance in the picture on page 50. They are not difficult to make and are pretty made rather deep in rooms where the ceiling is rather high, or narrow in rooms with low ceiling. It hangs between the side curtains or over them. Sometimes valances are put around the bottom of beds too, for decoration, from the spring to the floor. If used they should be removed often and washed.

The girls' beds and bed furnishings. Mrs. Roberts sent word to Miss James that she would give the two beds for the girls' room. Single, white enamel, iron beds without brass trimming are simple and inexpensive and suitable for such a room. They cost with springs \$7.50 (Fig. 10). I wonder why Mrs. Roberts didn't give a double bed. Can you think why? The mattresses are good felt ones. Hair is of course the best, but is expensive. A good hair mattress for a single bed 6 feet 4 inches \times 3 feet wide costs \$20. A felt one costs from \$8 to \$10. The springs have good strong edges, and the pillows are made from the curled goose and duck feathers raised on Mrs. Roberts' farm. It would cost



Courtesy of Whitcomb Metallic Bed Co.

FIG. 10. — This is the style of bed chosen by Mrs. Roberts for the girls' room.

\$3.50 per pair to buy them in size 20×28 . The blankets are new, and are made of cotton and wool, — a double one for each bed. The sheets and pillowcases are of cotton, and Mrs. Roberts says she bought the sheets long so they can be turned down over the blankets for at least 15 or 18 inches to prevent the blankets from becoming soiled when in use. Such blankets of cotton and wool cost \$3.50 per pair, and all wool ones \$7 to \$9 per pair. Grandmother Allen says she used to care for the sheep, wash and card their wool, spin it on the big wheel, and then weave the blankets. Would you like to do all that? It is interesting work, but modern machinery and inventions are our helpers, and save time for other uses.

Sheets for the beds. Grandmother used to weave the sheets, too; but of linen because cotton was not available for use. Do you know why? You have learned that linen was used long ago, even in Pharaoh's time in Egypt. When was cotton machinery for ginning perfected in America so that cotton was available? Good linen sheets of medium grade for single beds cost from \$2 to \$3 each; cotton ones of good quality cost from \$.50 to \$1.00 apiece according to size. If you are to make the sheets at home, buy sheeting, single, two-thirds, or full-sized bed, either bleached or unbleached. The usual size of sheets is from 54 inches \times 94 inches for single beds, to 90 inches \times 112 inches for double size. In Grandmother Allen's day the cloth was woven rather narrow

and a seam placed in the center. This was deemed an advantage, for as the sheet became worn in the center, the outer edges were turned towards the middle and sewed together. It is possible to make them of un-



Courtesy of Teachers College Record.

FIG. 11. — This shows how chintz or Japanese crêpe can be used as a border for the bed cover used during the day.

bleached cloth and seam them at the center. This is usually done by hand with the overhanding stitch.

Mrs. Roberts gave a quilted pad for each bed, to be placed under the sheet to protect the mattress. Barbara Oakes says at her house they use an old single blanket for this purpose.

Spreads. Dimity spreads can be bought for \$1.00 or \$1.25 apiece for single beds, and are not so heavy as the Crochet and Marseilles materials. For day use the girls decided to make bed covers of white muslin with some of the pieces of chintz for borders. The one in the picture (Fig. 11) shows a simple way of using such decoration.

Pillowcases. One may use tubing which comes ready in several widths, so that it is not necessary to seam them, only to hem the ends. This costs from 19 to 27 cents per yard and varies in width. Cotton pillowcases $22\frac{1}{2} \times 36$ inches can be bought for as little as 16 cents apiece, or linen ones for \$1.35 per pair or as much as \$4 or \$5 per pair.

So you see how many things one must know about textile materials in order to choose wisely the furnishings for any home. They must be suitable and pretty and answer one's purpose. When the Pleasant Valley girls studied their textbook, *Clothing and Health*, they learned about textile materials. Perhaps you have studied this, too. To-morrow we shall continue our study of the other furnishings which the girls chose for the bedroom.

EXERCISES AND PROBLEMS

1. Name the necessary furnishings for the iron bed.
2. In furnishing a bed what articles are necessary for warmth? For cleanliness?
3. Can you think of any other arrangement for storing clothes, besides the one the Pleasant Valley girls used, if you have no closet?

4. How many sheets and pillowcases would Mrs. Roberts have to give for furnishing these beds and for change? From your teacher's catalogues estimate how much you think they will cost.

LESSON 3

CHAIRS FOR THE BEDROOM

What chairs and other articles of furniture will be suitable for this bedroom?

Have you ever thought how many different kinds of chairs there are in the world, and do you know that many of them have names? Some are called by the



Courtesy of Metropolitan Museum of Art.

FIG. 12. — Why do you like this old Jacobean chair?



Courtesy of Metropolitan Museum of Art.

FIG. 13. — This chair is a copy of an old Chippendale design.

style or period of time when they were used, as Colonial, meaning about the eighteenth century; Georgian, or Jacobean, Louis XIV, or Louis XV. There were four English cabinet makers of the eighteenth century who

were true artists and designers. Their names were Thomas Chippendale, A. Heppelwhite & Co., Thomas Sheraton, and James and Robert Adams. Not all cabinet makers are artists. Not all chairs are suitable



No. 1.



No. 2.

Courtesy of Metropolitan Museum of Art.

FIG. 14. — These two old chairs are interesting. No. 1 is of Sheraton design and No. 2 is Heppelwhite.

for bedroom use. There are many simple chairs which have been reproduced from the old English or Colonial models, and some of these are usually in good taste. Have you ever studied the chairs at your home? Perhaps you have inherited some of Grandmother's old mahogany. Or you may have in your house chairs

which are of the Colonial period or possibly some designed by the firm of Heppelwhite, or Chippendale, or Sheraton. If you have, they are treasures worth caring for.

The manufacturers of chairs and furniture of to-day study the old styles and very often copy them. Sometimes they go to the museums in large cities to copy the choice pieces. The pictures (Figs. 13, 14) show characteristic examples of these old cabinet makers' work. It will make an interesting exercise to look up the lives and work of these cabinet



Courtesy of Wm. Leavens & Co.

FIG. 15. — The old Windsor chair loaned by Mrs. Adams.



Courtesy of Wm. Leavens & Co.

FIG. 16. — The girls will use this style of wicker chair in their bedrooms.

makers, and to write a composition about them.

Learning to identify furniture of different periods. It is a profitable study to learn about furniture of different periods and to be able to identify it. Perhaps in the homes in your neighborhood there may be many interesting old pieces which you can bring together for an exhibit. Some of the members of the Pleasant Valley Mothers' Club will

loan pieces of furniture for the cottage. Mary Adams' mother has a Windsor chair which she says she will contribute; perhaps it can be used in the living room. The picture (Fig. 15) shows how it looks.

Wicker chairs. If one cannot have old pieces, there are some modern chairs which are in good taste for bedrooms. Do you not think the picture of the willow

chair is attractive? Such chairs can be bought for from \$4.00 to \$10.00 a piece. The girls decided to have two in the girls' bedroom and to use some of the chintz for seat covers. This furniture is serviceable and comfortable, as well as inexpensive.



Courtesy of Wm. Leavens & Co.

FIG. 17.—Cottage furniture suitable for bedroom chairs. The girls use a straight chair like this for their desk chair.

Cottage furniture. The modern furniture, called cottage furniture, is very good in style. It is simple in line and design. The good old furniture of the Colonial period was characterized by its simplicity of line and design. The pictures (Figs. 17 and 18) show some good chairs of cottage furniture, simple in style and suitable for bedrooms. "Sets" of furniture in bedrooms are

apt to be monotonous. Chairs of varying styles, as a wicker chair or one of Windsor style, add interest.

In Jane Andrews' attic there is an old rush-seat chair which is worn and scratched. Miss James thinks that can be painted white, too, to match the bureaux, and will answer for the desk chair. The lines are simple and it is free from ornamentation. In its day, one hundred years ago, it was a very good chair. So all the chairs have been chosen. The wicker ones are the unstained, unvarnished ones, and look well with the chintz.

The bureau and chiffonier. One of the girls, Agnes Groves, had a bureau in her attic, but it was without a mirror and had no handles. Molly Stark said her mother has an old chiffonier of drawers. Neither of these are old pieces; but they are of oak which is spotted, and the varnish was well rubbed off from use. The mothers say they were glad to get rid of them. Miss James told the girls such old pieces may easily be repaired and painted for the girls' bedroom. So



Courtesy of Wm. Leavens & Co.

FIG. 18. — Two more chairs suitable for a bedroom.

they took them out of doors and scrubbed them well with hot water and soda, inside and out, and painted them with one coat of white paint and one of white enamel. Miss James sent to Mr. Wright's hardware store in Pleasant Valley for two sets of brass handles very simple in design ; and the two necessary pieces were complete except for the mirror. The boys said they could construct a frame ; and the girls decided to paint it white and to buy a piece of glass. This is to be hung over the bureau.

The desk table.

This piece of furniture was easily found, for at the hardware store, are simple kitchen tables with single drawers.

As it was too high, a half inch or an inch was cut from the legs. This table was painted to match the bureau and looked well with a blotter of gold color on it. Have you felt that perhaps even in this sunny room a touch of the sunshine color was needed ? Try to see how it



Courtesy of Wm. Leavens & Co.

FIG. 19. — The chiffoier which the girls repaired.

adds to the effect of any such room. This table need not cost more than \$2.00 for a medium size. It will be a comfortable place for writing; and the lamp may rest upon it. Can you not picture one of the girls writing and preparing her lessons, and the other seated in one of the wicker chairs at the side of the table reading?

This room did not need a washstand, as the bathroom is adjoining. Mr. Roberts had planned for a wash basin with running water as well as a tub. The girls can keep most of their necessary toilet articles there.

A waste basket. This is a necessity in every bedroom or living room. One of the girls who knows how is making one of rattan. It will match the wicker chairs in color.

The pictures. Miss James asked the girls about the pictures and other decorations. The bedroom, they remembered, is for rest and should be kept sweet and sanitary. Too many things in a bedroom collect dust. It is decided to have three pictures which will remain and to let each girl who visits the cottage home



Courtesy of Wm. Leavens & Co.

FIG. 20. — The bureau which the girls scrubbed and painted. Notice the simple mirror placed above it.

bring with her such personal pictures and belongings as she would like to have about her.

The question of what pictures to have is important. Do you know that in Japanese homes they bring out only one picture at a time and really enjoy it? In most American homes we usually have too many pictures and objects about. Miss James said that pictures of friends and relatives are personal things and can be placed in one's bedroom. She also said that there are many lovely reproductions of pictures of famous artists to choose. Do you know the names of Whistler, Corot, Millet, or Sargent? There are hundreds of others. From their works one can always choose some simple pictures for the bedroom which will be restful, and acceptable to those using the room. Photographs of exquisite bits of scenery are also pleasing. Be careful in choosing the frame and the mat. White mats are as a rule too conspicuous on most walls. One must study the background and color of room in choosing mat and frame. In the girls' bedroom of the cottage white mats looked well on some pictures. The frame should be neat, simple, durable, and not at all conspicuous. The frame is to bring out the beauties of the picture, not to call attention to itself. Most people hang their pictures too high. On a line with the eye when standing is a good rule. The hanging of pictures requires thought, too. The size of space on the wall should be considered in relation to the size and shape of the picture, and a large square picture

should never be hung in an oblong space. It is always a relief and good taste to have some wall spaces without pictures.

The shelf. The boys have been asked to put up a shelf on brackets. This is to be placed reasonably low, and is to be four feet long. Miss James thinks this can be painted gray too, and will be a convenient place for the books the girls will be using. There are two books on the shelf which will remain — The Bible, and a dictionary. Marjorie Allen says she thinks a pot of ivy from her back yard will look very well on the bookshelf at the end near a window. The ivy hangs gracefully from the shelf and makes the best kind of decoration, — so much more attractive than bric-a-brac on the shelf.

A bright, homey, clean room. So Miss James and the girls have made a homey, bright, clean, attractive room for the girls to occupy. (See Frontispiece.) How different it is from the cracked ceilings and walls and the dirty boards of the floor when they took possession! The sunlight gives all the warmth necessary for part of the year; but in one corner is the stovepipe hole, where the little wood stove can be put up in winter. A wood fire is easily started and warms the room quickly. This room is so pleasant that all the girls are anxious for their turn to come to occupy it. Perhaps you would like to study your bedroom at home and change it sometime, if you cannot have a cottage near your school. Some girls have earned money on

their tenth of an acre by raising and canning tomatoes, and have used some of their own money to make their rooms and homes more attractive (Fig. 21). As you have learned from this story, much can be done with



Courtesy of Wm. Leavens & Co.

FIG. 21. — A simple bedroom tastefully furnished by a Pleasant Valley girl, with cottage furniture.

thought and ingenuity and a little money for paint and a few necessary things. Do you think the girls' bedroom will be a difficult place to keep neat and attractive? Some day we shall study how to clean, for the

girls wish to learn to do all the work themselves and to care for the whole cottage.

Miss James' bedroom will be studied next. Do you think the girls made it look quite different? It should, for it is for an older woman; and then the light and location made it necessary to treat it differently. To-morrow we shall study about how they planned for the other bedroom.

EXERCISES AND PROBLEMS

1. Place a piece of tracing paper over the picture of the Sheraton chair and trace it. Do you like it? Compare with any old chairs you have at home.

2. Can you plan a loan exhibit of old chairs which are good in line and design?

3. Bring all the pictures you can find of chairs suitable for a bedroom. Mount on cardboard or brown paper. Discuss them in class.

4. Trace any good pieces of bedroom furniture you like from books on house furnishing at the town library. Bring the tracings to school for discussion.

5. Tell in 200 words what you would like to have in your bedroom.

6. What pictures do you suppose the Pleasant Valley girls chose for their bedroom?

LESSON 4

ANOTHER BEDROOM TO FURNISH

The bedroom facing north and west makes another problem in furnishing. How do you think the walls, floor, ceiling, and wood-work should be decorated?

Miss James says she loves sunshine. The north bedroom has two windows, one facing north and the other west, so that the late afternoon sun enters there. The floor and walls were in the same condition as the girls' bedroom; so all had to go to work to fill in the

cracks and holes of walls and ceiling, floors and woodwork, with plaster, putty, and filler.

The colors were studied for the walls, floor, and woodwork. We have learned that warm colors are best in a room with little sunshine. Jane Andrews thought that some bright sunshine-yellow paper with stripes or a good all over design would be pretty. There was a lovely sunshine-yellow one in the



FIG. 22. — The wall paper used for Miss James' room.

sample book, which had an all-over pattern. This is really good because it is so indefinite that one would not be conscious of it when one enters the room. Have you ever noticed how the flowers seem to jump at you when you enter some bedrooms? That is not a good design which is so conspicuous that one is conscious of it. The picture (Fig. 22) shows good de-

sign of wall paper of all-over pattern something like the girls chose for Miss James' bedroom. Marjorie thought that the ceiling should be cream instead of white kalsomine. Can you give the reason why this is right, in order to have gradation of color? A little yellow ochre will make the kalsomine a good creamy color. Can you tell what color the girls thought best to place on the floor? Yes, it must be darker than the side walls. What will harmonize with the sunshine-yellow paper? Yes, brown will make just the right kind of background if you study the value of it and have it neither too dark nor too light, nor too red, but with enough gray in it to harmonize with the walls. How to treat the dirty white woodwork in this room was a problem. Of course the holes had to be filled with putty, and then it was painted. The girls voted and Miss James helped with her suggestions. She said that it must be some light value of color. Do you know what light value of a color means? It is almost the same as saying a small per cent of the color with white added. It must harmonize with the sunshine paper, brown floor, and creamy ceiling. Yes, white would be quite in harmony, for this room has not as much light as some. Jane thought she would prefer creamy white like the ceiling, and Marjorie suggested that the woodwork be painted very light brown, a little darker value than cream color. Miss James is to occupy the room and, although any of these would look well, she preferred to have the white woodwork. Miss James thought

she would like to choose the colors for the rag rugs which Grandmother Allen says she will weave. On

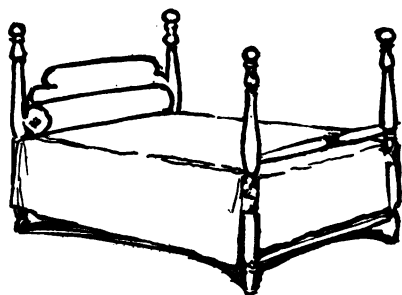


FIG. 23. — Miss James uses this old bed which belonged to her grandmother. Notice the simple lines.

the dirt-brown floor she thinks that a gray-green of middle value will look well with a border of a little white and black and a stripe or two of dull yellow. Miss James gave the girls the designing of this rug for a problem at school. They had to show the size, shape of

the rug, and right proportion of each stripe of color in relation to the whole. It is much more interesting to design for a real thing to be used than for an indefinite thing.

Miss James' furniture.

Miss James had an old mahogany four-post bed which belonged to her grandmother. It can be used very well in this bedroom. It is simple in design and has four high posts with knobs at the top. The boys rubbed it off with oil and gave it a fresh finish. It belongs to the Colonial period, as do

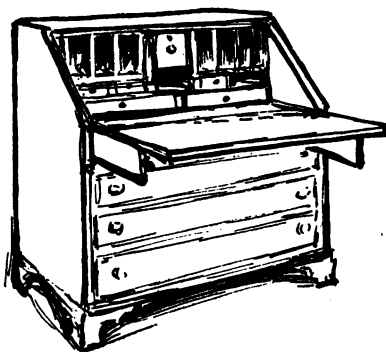


FIG. 24. — Miss James' desk is of Colonial period.

Miss James' desk and bureau which will be placed in this room. Miss James treasures these three old pieces and enjoys them so much that she always uses them, and has taken them with her to the different towns where she has taught. The bureau has columns at each end and three large drawers below and two smaller ones at the top.

There is a long, oblong mirror with mahogany frame which hangs above it. How well it looks against the yellow paper and with the white woodwork! One of the common combinations in house furnishing of the Colonial period was the use of mahogany rails with the white woodwork of the staircases, and white window frames in the rooms with mahogany furniture.

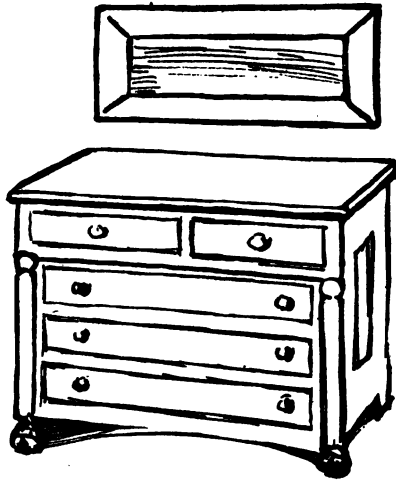


FIG. 25. — The bureau, too, is old.

There is a good-sized closet in Miss James' room, so that it was not necessary to plan for the shelf and curtain, although Miss James says she would like three shelves built for her books, one the same height as in the girls' room, and two below.

Miss James thinks she would like one of the wicker chairs for her room. She will use the straight high-

backed chair which Marjorie's mother has loaned for a desk chair. Miss James thinks her room looks very cosy.

The curtains and pictures. Miss James decided to have scrim of a creamy color for the curtains in her room, with the selvedge left at the edge and a hem of two inches placed at the bottom. The curtains fall in straight lines from the rod to the sill of the window. There is no heading at the top, only a casing for the rod. The girls made these and had practice in straight stitching by machine. The chintz is a combination of green, yellows, white, and a touch of burnt orange. Can you picture how pretty it looks? Half a width with the guimpe edge will be enough to hang at each side of the windows; just as those for the girls' room were planned.



Courtesy of Wm. Leavens & Co.

FIG. 26. — This straight chair loaned by Mrs. Allen is very suitable for a desk chair.

For pictures Miss James has some views of the Swiss mountains at Zermatt showing the Matterhorn and Mt. Rosa, and also a lovely one of the sea at Amalfi in Italy. Her family photographs, and books completed the room. Miss James also has a beautiful Boston fern which was given to her by the graduating class last year. The boys made a small stand from some of the soap boxes in the woodshed and painted it white to harmonize with the woodwork of

the room. Miss James uses a lovely Indian basket with a brown and orange design as a jardiniere for the fern. How lovely it will look near the west window ! It can sometimes be moved into the girls' room for more sunshine, in the early mornings.

Miss James has two or three small bowls for flowers, but otherwise no bric-a-brac in her room. How comfortable she will be ! The small table which has the tip top belongs to Mrs. Aiken. It holds the lamp and one of the bowls of flowers. The girls made covers of the chintz for the bureaus, tables, and chiffoniers. They were made to lie flat one inch from the edges of the table or bureau, and the guimpe used as a trimming all around the edge. Can you think of Miss James in her wicker chair seated near the table reading, after her day at school, or writing at the desk ? How glad the girls were to make her room such a pretty, healthful place ! It is light, airy, and sanitary.

If you haven't a cottage to plan, perhaps mother would like to have you remodel her bedroom. Remember always that it is a place for rest and must be clean and free from dust. Perhaps there are pieces of good old mahogany or other furniture in your attic,

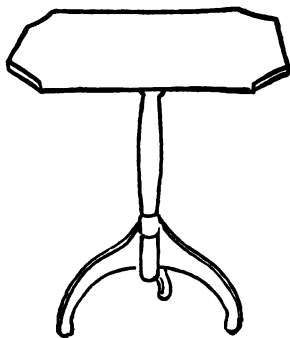


FIG. 27. — The tip-top table loaned by Mrs. Aiken.



Drawn by Dept. of House Decoration, Teachers College, N. Y. C.

FIG. 28.— Miss James' bedroom is very attractive. All the neighbors enjoyed seeing it when completed.

which you can repair and use again for a change. Jane Smith of Pleasant Valley says her mother is anxious to have her room rearranged and says Jane may do it. She has rag carpet on her bedroom floor, and Jane says there is a lovely mahogany bed and bureau. The combination is good, but of course a carpet which is tacked down is not as sanitary as rugs which can be taken outdoors and beaten. If it is necessary on account of the needed warmth to have a carpet, it could be made like a large rug and tacked at the edges. During the warm part of the year it could be removed, and a few rag rugs or matting put down.

After Jane finishes rearranging her mother's room, the Pleasant Valley girls expect to go with Miss James to see if Jane has remembered the essential things to keep in mind in planning for a pretty, healthful bedroom.

EXERCISES AND PROBLEMS

1. What are some of the colors one can use in bedrooms which have little sunlight?
2. Bring to school any samples of wall paper, stripes and all-over designs, which you have at your house. Pin on the wall. Criticise from the point of view of design, of light, and of place where they might be used.
3. What kind of a bed would be suitable for Miss James' bedroom if she hadn't had her own old furniture?
4. What other articles of furniture would you choose for this room, if Miss James' pieces were not to be used?
5. What are your opinions in relation to the use of carpets in bedrooms?
6. What kind of pictures do you enjoy in your bedroom?

LESSON 5

THE BATHROOM

The bathroom is one of the most important rooms in the house. The Pleasant Valley girls decide how theirs shall be furnished.

Mr. Roberts had the plumbers put in a white porcelain tub at the school cottage. There is also a small

basin with running water, and a toilet.

This is a great convenience for both Miss James and the girls; for it is not necessary for them to have the washstand in their rooms, with the bathroom so near. This room was once a large closet and was between the two bedrooms with a door opening into it from each room. It also has a good-sized window.



Courtesy of J. L. Mott Iron Company.

FIG. 29. — A bathroom must be kept clean and be simple in its furnishings.

The ceiling and walls were very cracked and the wood-work was in the same condition as that of the other

rooms. The cracks were filled in, and the girls decided that white paint was best and cleanest looking for the woodwork. The bathroom should always be planned so as to furnish as much comfort and cleanliness as possible with the least amount of care. The furnishings should be as simple as possible.

The girls noticed that the window faces east, and decided that some yellow value a little deeper than cream would give the room warmth and a note of color and cheer. Miss James reminded them that the one thing to keep constantly in mind in this room is sanitation. It is in connection with planning a house and furnishing the rooms that many of the hygiene talks which Miss James emphasized last year can be put into practice. Shall the walls be papered or painted? Miss James says, even though the cracks are noticeable because not well filled in, and the surface is somewhat rough, she thinks that paint is much more sanitary for this room than paper. A painted surface can be washed and kept very clean. So the girls and boys decided to paint it light yellow or cream.

The floor was a problem. It was rough, but with filler and brown paint of dirt color, Miss James told the girls, it was greatly improved. In a bathroom it is, of course, very nice to have tiled walls and a tiled or hardwood floor; but, in this old house, Miss James thinks that the painted floor and walls will give satisfaction and cleanliness. The floor could have been covered with linoleum.

The bathroom furnishings. What furnishings were

necessary? Yes, three towel racks: one for each girl and one for Miss James; and then rods for bath towels. A rug is necessary and a bath mat adds comfort. A small rag rug like those in Miss James' room would look well. Jane Andrew discovered there was a piece of hit-or-miss rag carpet at home, which her mother said she might have. Jane unravelled it a little at each end and tied the warp threads in a fringe. This answered the purpose and looked well.

In this room, the girls decided to use a white cheese-cloth curtain of the same kind as those in the girls' bedroom. A small mirror, an ordinary one which one of the girls found in her attic, was painted white to hang above the washstand. On each door are two brass hooks, and the girls have made some brown denim laundry bags to suspend from each door. The boys have built a small cabinet from an old box, and it has been painted. What a suitable place to keep the toilet necessities away from dust, and also to use as a "first aid" closet! A shelf just above the washstand has been put up by the boys, and is very useful. They have also, at Miss James' suggestion, placed a small shelf low near the bathtub, where a box of cleanser and a scrub brush are kept for cleaning the tub.

The room is quite complete except for a chair or stool. One girl brought a low rush-seat chair. It is an old one of good lines, and Miss James thinks, if it is scrubbed and then treated with a coat of varnish, it will look very well. A low chair is most convenient in the bathroom.

When you are tired would you like to go to such a clean room and take a bath? What a pleasure it would be! It cost Mr. Roberts \$100.00 to have the bathtub and toilet put in. There was plenty of water on the place and a good tank, so that it was easy to plan for it. Perhaps some day you can earn enough money to have a tub put in your house. One can be clean by washing oneself all over every day, but a tub is so much easier and more convenient and such a comfort. The girls think this will be a very easy room to keep clean. Some day we shall have a lesson on how to do it.

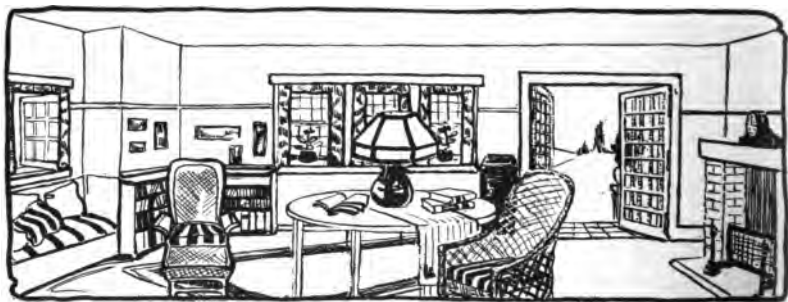
There is a small closet in the hallway near this room, and Miss James thinks it is a very good place to keep the household linens, beddings, towels, sheets, and face cloths. She will explain how later.

EXERCISES AND PROBLEMS

1. Describe a sanitary bathroom. What should it contain for comfort and cleanliness?
2. Where does the water supply for your bathroom come from?
3. If you could buy toilet supplies for this bathroom, what necessary ones would you select?

REVIEW PROBLEMS

- I. In what ways would you change the girls' bedroom of the Ellen H. Richards House if you were to plan for its furnishing?
- II. What plans are being made for your teacher's comfort and happiness in your Pleasant Valley?
- III. What are the essential requirements of a comfortable bathroom?



CHAPTER II

THE LIVING ROOM AND DINING ROOM

THERE were also a living room and dining room to be furnished at the Pleasant Valley cottage. The girls studied the living room first and planned to make it comfortable and pretty. What color scheme would you choose for such a room?

Have you ever noticed that you enjoy some rooms more than others, and that in some you feel happier and more comfortable? So many girls say this about the Starks' living room at Pleasant Valley. This feeling is often due to the fact that the room is well decorated and furnished, and to the fact that the beauties of line and form and color have a pleasing effect. Such an atmosphere makes one happy and is conducive to better living. We sometimes like the homes of others better than our own, because some people are able to bring about such pleasing effects, or harmony. It is

well to study how to make one's home attractive in this way. A house must be furnished in relation to health and convenience too, if the home is to be truly successful. It must be simple and adapted to one's way of living, and be a place which brings cheer and



Courtesy of Farmers Wife Journal.

FIG. 30. — The corner of a cozy living room.

comfort as well as an atmosphere of rest. This can be done even though one has very little money, if one understands how to get the pleasing effects. How about *your* home? Are you helping to make it such a place? The League girls planned their cottage so that



Courtesy of Farmers Wife Journal.

FIG. 31. — Another cozy living room. Notice the windows with the curtains and valence.

it has a truly “homey” atmosphere. Miss James taught them about the principles to be kept in mind in order to have it so.

LESSON I

THE COLOR SCHEME FOR THE LIVING ROOM

In planning the furnishing of a room, what do you think is the first thing to consider?

Miss James says the first idea in relation to furnishing is the thought of unity. You too have learned about unity in design in your art work, and you know that

it is due to the right relation of shapes and lines, of dark and light and color. Anything which intrudes itself has poor design, and is out of harmony. One should be conscious only of a delightful whole. Miss James says that if we adapt this principle of art to the decoration and furnishing of our homes, we will not plan a bright-red room to open into a lavender one; we will have no disturbing elements; and there will be a definite scheme in mind in planning the whole. The Pleasant Valley girls have certainly carried out the principle of unity in planning for the bedrooms.



Courtesy of Craftsman Company.

FIG. 32. — An attractive corner.

Simplicity is another principle. Miss James says simplicity in all things is an evidence of good taste, although many people do not practice it. It means having the things which meet the needs of daily living and of comfort rather than many useless things. Mrs. Stark is particular about this. It means avoiding mixtures of all kinds of furnishings and materials. It means having one picture or print which is good rather than having half a dozen bright chromos or large family

portraits in gilt frames. It means one simple vase for decoration with perhaps a spray of flowers, rather than a room full of bric-a-brac, which many homes exhibit. It means that use as well as beauty has been a guide in furnishing. To have true simplicity the articles about the home should express the individuality of its members and should be honest, simple, and true. Another day Miss James planned to tell the girls some of the other principles which they can take for guides.

The girls visited the cottage with Miss James and studied the empty rooms of the first floor. They found plenty of cracks, as upstairs, to be filled in. The north room has a floor of wood and an open fireplace which is very deep, and a simple mantel shelf of white wood with carved columns at the sides. This room is to be used for the living room. It has windows at the north, east, and west, and a door leading out on the west porch. There is another door leading into a small hallway. The dining room and kitchen are on the other side of the hall.

The girls studied the situation. Yes, there was plenty of light and air, but no southern exposure. It is a room that is so well lighted that it did not need especially light colors for reflected light, nor very sunny colors because of the east and west windows. It can, therefore, be treated with rather medium tones. Miss James had a sample book of papers and turned to the lovely golden browns. She held them up against the wall. Then she told the girls about color.

The girls were anxious to learn, for they appreciate how important it is to know about color combinations for effective house decorations, or for dress. Miss James said that color schemes for rooms must be studied in relation to light. We have learned that gradation of color is a part of every scheme, and we know that the darkest values are often placed at the base and the lightest at the ceilings. Do you remember how that was considered in the bedrooms and how the intermediate values between the lightest and darkest were on the walls?

Miss James talks about color. Miss James says to think about color is a good way to study it. Nature does not make mistakes. Observe what she teaches. Have you seen how different are the sunsets on a clear day from those on a misty one when all is rather gray? See the wonderful backgrounds. They are of what is called middle values of gray or purple, brown or green. The bright colors are only in patches. By way of relief Nature plans for this gradation of color, too. Notice that the sky is of lightest value, the ground of the darkest, and the foliage and general background for houses and fences, stones and trees are of middle value of color. It is these middle values of color which make the true backgrounds for our homes or in dress. Miss James tried the greens, also, against the wall. They, too, looked well. In the book there were simple all-over designs and some plain papers too, called cartridge paper, which has rather a rough

surface. The girls liked the effect of the plain paper, and decided on the brown of good middle value which seems to have some sunshine in it. In other words it is a warm brown. They decided to paint the floor a slightly darker brown than the wall paper, and the ceiling a creamy ivory kalsomine to give good gradation of color, or a flow of color one into another, instead of too sharp a contrast, as a white ceiling. The wood-work of windows and of mantel was painted a creamy ivory white which harmonized with the brown of the walls and floors.

Miss James says it is more difficult to combine complementary colors, as such an arrangement makes both colors stand out, and must be used with care. You have learned this about color in your art class. A good combination is a large amount of one color, and a small amount of the contrasting color in a subordinate relation. For simple interiors the color schemes having one predominate color are very pleasing. Another way would be to take one tone, as yellow, and plan for different intensities and values of the same hue. These are simply hints in relation to color combination, as an artist makes no laws for combining colors. Many women fail in planning their schemes for house decoration because they have no appreciation for color. This sense can be trained; and girls must study about color as well as about other things, if they are to combine colors in a better way. This is another expression of refinement, and every girl wishes to have

this appreciation of color harmony in home furnishings as well as in dress. Have you learned about this at your school, too?

Miss James told the Pleasant Valley girls to think first of the use of this room. It is a place for daily



FIG. 33. — A cozy room with all its comforts.

use. Parlors have long ago become unfashionable, and the comfortable living room has taken its place in the average home. No more rooms shut up to be opened only when an occasional visitor arrives, rooms that are mildewed and have a stuffy smell because of lack of sunshine and fresh air! Mrs. Stark had such a room several years ago, but one day she suddenly decided to reorganize her way of managing her home. This was after Miss Travers, from State College, gave such a helpful talk on “Common Sense in Home Management.”

What should a living room provide in its furnishing in order that this common meeting place of the family of the house may be a haven of cheer, a place of relaxation for all? Shall we picture it, before we decide about the articles of furnishing? It should be a room well aired and easily cleansed because of its frequent use, and should have a fireplace, with logs that really burn, as well as a stove to be put up for winter use, if there is no other method of heating. The cheer furnished by a fireplace is worth taking into account. What are some other furnishings we want? Some comfortable chairs, by the windows or by the central table where a good light stands at night. A place for the books; a couch near the light. A piano if one has one, or the victrola stand in one corner. Here it is that the family will assemble. An extra table with another lamp at one side of the room furnishes a place for one or two who wish to draw aside for reading. The living room at the Pleasant Valley cottage will be the common place of meeting for the girls and boys, — the room in which their entertainments will be given and in which hospitality will be practiced. Can you see this picture, and how they had to try in selecting its furnishings to have all contribute to this ideal of unity and simplicity, true comfort, and an atmosphere of rest and cheer? Do we keep these principles in mind in our own homes as we select their furnishings, and collect about us the things which are to help us in our living from day to day?

Have you thought about this at your house? So much of right living depends on it. Sometimes members of a home do not enjoy staying in it, because the home is not a happy place. Girls and mothers must learn how to make it so by creating the right atmosphere. Have you tried?

EXERCISES AND PROBLEMS

1. Plan the color scheme for a living room which you think you would enjoy. Choose samples of the colors you would like for the walls, floors, woodwork, and ceiling.
2. Think of some good ways to study color. How does light affect the selection of colors for a room? How does use affect choice of colors?
3. Think how you might improve your living room at home if you had the opportunity.
4. How should the living room be used? What is meant by having the right atmosphere in a home?

LESSON 2

THE FURNITURE FOR THE LIVING ROOM

What articles of furniture shall be placed in the living room in order to bring about the homey and comfortable effect we have discussed?

Other principles to guide in furnishing. Miss James told the girls of Pleasant Valley that there are other principles besides unity and simplicity which should guide them in furnishing their house. Appropriateness is equally important. She said it is poor taste to select unusual or pretentious furnishings. Do you

understand what that means? It is this: the things we have about us should represent our ideals or our standards of living. For example, it is poor taste for a family with small income to try to copy the furnishing of the houses of the rich. A reception room with gilt furniture may be quite proper for a rich family, where there is much entertaining, but, in the home of a teacher or a business man or a farmer with a comparatively small income, it is extremely poor taste, as is a cheap quality of anything which imitates what others with different standards of living can afford. Furnishings should be appropriate to one's station in life, and should be within one's income and represent one's ideals and standards. It is better to have simple cheesecloth curtains and wicker furniture if one can afford them than to try to imitate cheaply, brocaded draperies and upholstered furniture which may be appropriate and beautiful in some homes.

Miss James said that one can sometimes tell if things are appropriate by measuring how useful they are. "Dust collectors," such as much bric-a-brac, are seldom useful or appropriate. Think of the time which is spent in dusting them! Furniture with much carving, twistings, and ornamentation also collects dust.

The living room is a place for comfort; therefore, one should expect to find chairs which suggest ease and rest. Stiff, uncomfortable chairs would be very inappropriate in the same way that it is inappropriate, uninviting, and unhealthful to put a thick carpet and

heavy drapèries in a bedroom. The girls were so glad to have Miss James tell about these principles which help to determine how to judge if furnishings are in good taste in any kind of a home. Miss James said that the lines, the shape, and the color of articles must all be kept in mind. Don't you think the girls kept in mind unity, simplicity, and appropriateness as they planned for the living room of their cottage? In the next lesson we shall learn what she told the Pleasant Valley girls about choosing furnishings good in these respects.

The rugs for the living room. The floor covering was difficult to plan. They thought a bare floor would be easiest to keep clean as there will be much tramping in and out. Finally the girls decided to collect pieces of old Brussels and ingrain carpets and to send them away to be pulled to pieces and made into rugs. Six pounds of ingrain carpet will make one square yard of rug of any size and shape wished. They decided on the shapes or dimensions best suited to such a room, and tried to select old pieces of carpets which had much brown and green, rather than reds. The expense was not great; the carpets were wool, and made thick, warm, fluff rugs; and the color was indefinite brown. Such carpet-rugs can be made from old scraps for comparatively little and will be appropriate in such a living room, when one cannot afford a new ingrain carpet. Oriental hand-woven rugs are very beautiful and last for many years, if one

can afford them. The girls had hoped to be able to have a large rug of ingrain carpet with woven border to nearly cover the wood floor, or to have a rug made of strips of plain carpet sewed together so that only the border of wood would show; but they are quite pleased to have the rugs made from the pieces. Miss James says that the indefinite color and lack of



Courtesy of Metropolitan Museum of Art.

FIG. 34. — The old davenport frame is good in line.

design is most restful. Carpets of gaudy colors with large patterns and flowers are not in good taste in a living room.

The table and davenport. Mrs. Roberts' sister, who lives a few miles away, loaned an old mahogany card table. It is one of the kind which can be opened flat, or placed so that half the top rests against the wall. The girls decided to use it for a center table for the lamp.

The room is well lighted by windows during the day and so has plenty of means of ventilation. At night the lamp and fireplace furnish light and make it look very cosy too. Mrs. Roberts' sister loaned the frame of an old davenport, or sofa, which had been in her attic for years. She thinks it looks very well before the fireplace. It is large enough to hold a number of girls. The table was placed directly behind it so that the davenport also serves as a com-



Courtesy of Wm. Leavens and Co.

FIG. 35. — The wicker chair for the living room.



Courtesy of Metropolitan Museum of Art.

FIG. 36. — The old desk, loaned for the living room.

fortable place for reading. Old Mr. Clark in the village said he could re-upholster it. The girls decided to use a heavy unbleached muslin first to hold the springs, and for the outside cover, a dark material. It was something very simple which harmonized with the mahogany frame and was in keeping with the simple furnishing of

the room. The girls selected a piece from samples which Miss James had and decided on a brown figured denim.

The living room chairs and other furniture. Mrs.



Courtesy of Metropolitan Museum of Art.

FIG. 37. — Two of the old tables loaned for the living room.

Adams had two Windsor chairs which she contributed. Notice the simplicity of the lines in the picture (Fig. 15) and how very comfortable such chairs look for the living room. The girls also decided to have three of the comfortable wicker chairs, — one of them with pockets at the side arm for newspapers. Mrs. English, who is at Pleasant Valley only during the summer, said she would send over her piano, so that the girls will have it for nine months of the year. Marjorie Allen's mother loaned two small tables, and Jane Andrew's aunt gave a very good-look-

ing old desk. What fun to arrange all these pieces!

Agnes Groves found a pair of old brass andirons in her attic. How well they look shined until they are bright ! The soft woolly rug is before the fireplace and the davenport sofa, facing it. Back of the couch is the table with the lamp, with one Windsor chair and two of the wicker chairs grouped about it. The piano is at one end of the room, between the two west windows, and, in the corner near, is one of the small tables with a lamp and a wicker chair at one side. How cozy it looks ! The girls have placed the desk on the opposite side of the room, and the other small table near with a Windsor chair.



FIG. 38. — A lamp usually helps to create a homey atmosphere.



Courtesy of Metropolitan Museum of Art.

FIG. 39. — The desk chair used in the living room has good lines.

The curtains and window furnishings. How dainty, simple, and appropriate the curtains are, of creamy cheesecloth ! The girls have made them like those in the bedroom, with a hem of one and one half inches down the middle and at the bottom, and with the tiny white guimpe edge for a finish. Two widths of cheesecloth were enough for each window. The curtains

hang only to the sill. Miss James has some brackets and pots of ivy, and she has placed them halfway up the window frames at the east windows. How gracefully the ivy hangs ! The girls have decided to have window boxes at the west windows facing the road. Geraniums, ivy, and creeping smilax will look well all winter.



FIG. 40. — The window boxes are very attractive.

The girls and boys together made the boxes, and painted them to match the woodwork. They were placed on brackets so as to come even with the window sill.

Picture moldings. The ceilings of the first-floor rooms are higher than those upstairs, and the kalsomine color of the ceiling has been carried down about eighteen

inches. The picture molding is very simple. Miss James says that over-elaborate, highly colored moldings are not in good taste. The white creamy one harmonizes well in the living room and brings about unity. A gilt or green one would be a discordant note. Picture moldings must always be carefully placed, as they form a horizontal line about the room. Miss James talked a great deal about good lines ; I am sure

another day you, too, will wish to hear what she had to say. Moldings can be placed at the top of the wall close to the ceiling or below the border. Sometimes when the ceiling color is carried down low, the picture molding may even be placed on a level with the tops of the windows or doors.



FIG. 41. — Corot landscape.

Pictures for the living room. Choosing pictures to live with is very important. Miss James says she would like, for the long space over the fireplace, the lovely photograph which is a copy of one of Corot's landscapes. He was a French artist who loved nature and copied the

lovely hazy effects one sees so often. The picture is oblong in shape, and so is the space above the fireplace. Miss James says that in hanging pictures vertical wires with two hooks are preferable to the slanting wires where only one hook is used. Do you see the difference in the picture? Can you tell why the straight wires are more pleasing?

Miss James says the size and shape of the picture must be considered in relation to the space of the wall,

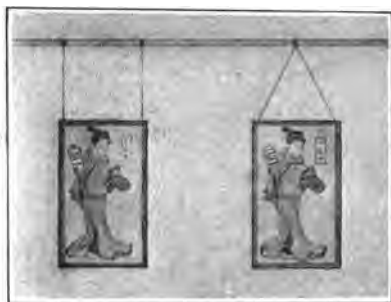


FIG. 42. — Which way do you prefer to have the picture wires hung? why?

also that too many pictures are not effective or artistic, and they collect dust. Gilt frames are generally for oil paintings or colored prints, and in a simple home oil paintings or copies are not in good taste. They belong in the homes of the rich or in picture galleries.

The Pleasant Valley girls decided to select the simple brown moldings for their pictures. There are only four pictures in the cottage living room. They are hung low so that all may see them, and hung also with respect to the light which will fall upon them. Miss James says it is a good rule to have pictures hung at a level, keeping in mind either the top or bottom of the pictures. The picture of Whistler's "Mother" is dignified and inspiring. The girls like it very much.

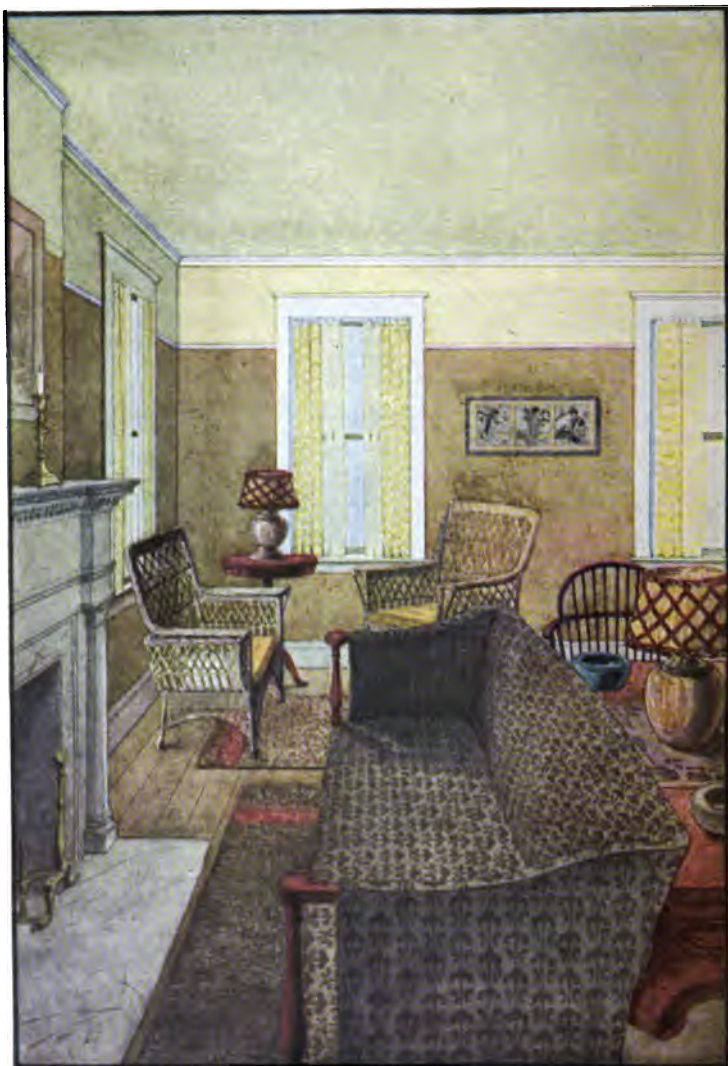
They have placed it over the desk at the west side of the room. There is also a copy of Milan Cathedral, a lovely large brown print which fills the space well on the south side of the room. On the east side is a Japanese print belonging to Miss James. It has such beautiful colors that the girls enjoy it very much. It brings in some of the colors which harmonize with the neutral tones of this room. Pictures should be placed so that they can be enjoyed, and the subjects chosen which will be pleasing and rest-

ful to those using the room. Several small pictures look well grouped in one space. Small and medium-sized pictures can be hung on nails without showing the wires. Nails can be bought which will not mark the wall.



Courtesy of Farmers Wife Journal.

FIG. 43. — A cozy desk corner. The picture is hung without showing the wire.



Drawn by Dept. of House Decoration, Teachers College, N. Y. C.

FIG. 44. — This is the room in which the Pleasant Valley boys and girls will entertain their friends.

Do you not think this is a cosy living room? There are a few things which the girls added. The brass candlesticks with yellow candles look well on the mantle shelf, and can be used. They are simple, and the brightness of the brass lends the spot of relief, or contrast as in complementary colors. There are two good green bowls for flowers, and on the table under the lamp is a simple green mat of tooled leather made by one of the girls. The magazines and books lend an inviting air. Would you like to plan such a cosy living room? or help to occupy such a cosy house? The girls of Pleasant Valley will enjoy it very much. (Fig. 44.) No house or room is too small or unattractive, but that something can be done to make it look more attractive, cosy, and homelike. Perhaps you have a room in your house which you can improve. Do not forget the principles which Miss James says we should keep in mind in planning. You may succeed so well that some day you may decide to study to be a house decorator. It is a good business if one has the talent and opportunity to study. There are many people who haven't the taste, time, or inclination to make their houses beautiful, and so employ others who know how. It is interesting work. There are schools where one can study for it.

EXERCISES AND PROBLEMS

1. Bring to school as many pictures as you can find, in old magazines or books, of suitable chairs for a living room.
2. What kind of a rug would you like in a living room?

3. Tell how the principles of simplicity and appropriateness can be carried out in selecting articles of furniture for a living room.
4. Write a description of the way you would like a living room in your own home to look.
5. Draw a picture of the best way to attach a picture to a molding. Tell why. How can you tell whether a picture is in a good relationship to the space it occupies?
6. What pictures would you like to choose for a living room?

LESSON 3

THE PLANS FOR THE DINING ROOM

The dining room is a very important room. Think of the many hours which one spends there each week. It should be a cheery comfortable place where one can entertain one's friends. It should be as sanitary as possible and easily cleansed, for it is here that one's food is served; and we have learned that health and cleanliness are closely related. The girls of Pleasant Valley realized how many things there are to think about and asked Miss James to help them.

The girls were quite sure that they understood about the principles of unity, simplicity, and appropriateness. Do you understand, too? They realize that economy and hygiene as well as the æsthetic aspects should be kept in mind in order to furnish a home successfully. Beauty depends upon this harmony. The girls are learning that the articles one selects for a home should express the individuality of those using it, and should be honest, simple, and true. In choosing they asked, is the article of use; does it please in form, in color, in decoration; is it durable. All these

questions helped them to decide whether to discard the furnishing or to use it.

Miss James says that decoration is very important. Many useful articles are made hideous by poor decoration. One should notice the decoration of articles when selecting them. Decoration should be simple and fit the space. You have studied how in your art class and in your design work. Some people forget to use their knowledge of design when they select household furnishings or clothing.

“Good lines” are very important. This is another principle which has helped the girls. Articles of furniture which have good lines do not need as much decoration. A house which has good lines and which is made in proportion will be pleasing because the effect will be harmonious. Sometimes if the construction of a home or of a room is poor, it is possible by decoration to correct some of the defects in line and to bring about more pleasing effects. Do you remember that in choosing the wall papers the question of lines was discussed? What effect did the vertical lines have on the girls’ bedroom? Do you remember about hanging the pictures, and the lines made by the wires? Lines make spaces and designs. One must remember this in placing pictures, in laying rugs, in choosing draperies and other furnishings. Sharp, jerky lines



FIG. 45. — This decoration fits the space for which it was planned.

which make ugly angles are not pleasing, but rhythmic lines which flow one within and into another, we like. In your art class have you learned the difference between the sharp, jerky designs and those which are



Courtesy of Metropolitan Museum of Art.

FIG. 46. — Some pieces of old furniture with “good lines.”

pleasing and fit the space for which they were planned? See if you can remember about “good lines” and spaces as you choose new articles of furniture or study those which you have.

The girls were very glad that the dining room also

had an open fireplace. There was a good stone hearth, but the wood floor was rather rough. The walls were somewhat cracked; and the woodwork had been painted gray. The ceiling is the same height as the living room. This room has three windows forming a bow window, also two facing west and one east, with a door on the east side leading to the kitchen.

The floor covering. Mrs. Roberts had a good rag carpet of hit-and-miss pattern, which nearly fitted. She told the girls she thought it would look well to use it as a rug and to have the floor painted around the edge of the room. The carpet can then be taken up easily and beaten, at least every two months. The boys can help with that. So the question of the sanitation of this room for eating was partially solved. The cracks of the walls were filled in, and the holes in the woodwork filled with putty. The girls studied the lighting of the room. There is fine south and west light, and so plenty of sunshine. They remembered what Miss James said about cool colors in a sunny room and decided that an old gray-blue would look well on the wall. They looked through the sample books and chose one of two tones of blue which gave the effect from a distance of a background of one tone but at the same time had a pleasing texture. It is an all-over design, and the lines of the pattern are good. Notice the design in Fig. 51. Do you like it? Can you think of the lovely blue with the second tone a little lighter? This contrast of color makes

the design you see. So color is a very important study as a part of design.

The girls decided that a pumpkin-yellow paint for the floor border would be appropriate, and would harmonize well with the rag carpet. The effect of this almost pumpkin color as a border to the rag carpet is very



Courtesy Metropolitan Museum of Art.

FIG. 47. — Seven old chairs like this have been hiding in the garret.

pleasing, and in harmony with the blues of the wall. Can you tell why? Some of the girls, Barbara, Agnes, and Marjorie, preferred dark brown like the living room, but not the majority. Either would look well and be appropriate. The ceiling of creamy kalsomine will meet the wall of blue. The woodwork had once been painted gray so that two coats of white paint were required to make it white. The girls thought that, as the room is so well lighted

anyway, they would plan to have the woodwork of ivory white like the living room.

The bow window was arranged with plants and window boxes at the center of the outer part of the window and with a window seat at each end of the bow nearest the room.

Chairs for the dining room. The question of the right kind of dining-room chairs was solved for the

Pleasant Valley girls. Jane Andrews' mother had a set to loan which had been in her garret. There are seven chairs. She put them away when she bought the new oak chairs and sideboard. Do you like them? Notice in the picture what good lines this one has. If you were to sit in one, you would find it very comfortable too. The backs are slightly decorated and the seats are rush. One can buy imitations of these



Courtesy of Wm. Leavens and Co.

FIG. 48. — Simple inexpensive, suitable modern dining room chairs for the country home.

chairs which are not very expensive and are in good taste. Surely one should value them, if one has the real old ones which are good.

The dining-room table. The table was loaned by Mrs. Stark. It was of little value as it was, but she thought possibly the girls might mend it, and paint it, if they wished. The boys helped. It was repaired; the castors put on; the hinges mended; and the surface was well scraped. A brown stain was used as near the

color of the chair frames as possible, and then it was rubbed down with wax and oil. The effect was a lovely rich, dull finish. The top is a beautiful piece of wood, but in its former finish of shiny varnish, did not look its best. The girls think the table will look very pretty when set with the light brown linen doilies for breakfast and supper. The doilies look well and save laundering of tablecloths. Then one tablecloth used for dinner will last a number of days.

The fireplace is deep and roomy, and another pair of brass andirons has been loaned for it. There was a cozy chair added too, by the hearth.

The curtains are of the creamy scrim like those in Miss James' room. The girls think they would like some simple overhangings at the sides of the windows. For this sunny room they chose a sunfast material of about the same sunshine color and value as the floor border. It is inexpensive and hangs in soft folds. The room is pretty without them too; but Miss James says it is a matter of taste, and, if they wish to have them, the scheme will not be spoiled. The same curtains with two-inch hem are placed in the bow window. Tiny brass rings were sewed to the curtains, so that they slip easily on the plain brass rods. They were hung both sides of the window except where the window box and plants have been placed.

The side table. The girls were unable to find a sideboard or side table which was suitable, with good lines and in keeping with the chairs and table. Mrs.

Roberts has a beautiful mahogany sideboard of Sheraton design in her dining room. Do you like the picture? (Fig. 49.) Mrs. English has one of the Colonial period. The girls could not afford even copies of these, and no one had an old one to lend. They studied the catalogues of several furniture houses and found it difficult to find



Courtesy of Metropolitan Museum of Art.

FIG. 49. — Mrs. Roberts' lovely Sheraton sideboard.

simple pieces of good lines and proportions. The picture (Fig. 50) shows the one which was finally chosen.



Courtesy of Wm. Leavens and Co.

FIG. 50. — Notice the simplicity of the sideboard.

It has good lines, is finished with dull finish, and is inexpensive. The girls debated whether to get this one with the drawers, or to buy an unstained, narrow kitchen table and treat it with a coat of stain and rub of oil like the dining table. They finally decided to buy the one with the two drawers. Jane Andrews' aunt

loaned three old pewter plates which have been polished and placed on the mantle shelf, and on the side table an old tray of pewter rests against the wall. On the table at the center was a simple cover and a bowl of flowers.

The girls have also learned something about upholstering. Miss James asked Mr. Clark, who covered the davenport, to come again and show the girls how to measure for the window seats, and to prepare the covers. They used excelsior and bran for the stuffing, and covered them with blue sunfast material of the same color value as the walls.

Do you think this is a comfortable dining room? Would you like to eat your meals there? Is it a convenient room in which to serve meals? The sunshine and the plants make it bright and cheerful, and, on cool days before the stove is put up, the comfortable chair by the fire will be a pleasant place to sit. The tiny pantry connecting the dining room and kitchen will care for the storage of all the necessary dishes and linen. The side table has two drawers. One will hold the knives, forks, spoons, and carving set; and the other the doilies and napkins in use, also the salt and pepper shakers.

The pantry and saving steps. The table linen and dish towels are in one drawer in the pantry, and there are two cupboards with glass doors above the three drawers. One cupboard contains the glassware on the lower shelves nearest the dining room, and the



Drawn by Dept. of House Decoration, Teachers College, N. Y. C.

FIG. 51. — The dining room planned by the girls of Pleasant Valley.

upper shelves the best china given by Mrs. Roberts. The other cupboard holds the dishes used every day.



FIG. 52. — This "silent butler" is a great helper.

The girls planned to locate everything as conveniently as possible so as to save steps.

For convenience Mrs. Roberts has given the girls two trays for carrying things to and from the dining room. These, too, save steps. She has also given a tray on wheels, which is a great convenience. It is of dark-brown wood and has two

trays, upper and lower. As it can be wheeled from kitchen to dining room, it saves the many steps necessary to carry dishes back and forth by hand. This tray is sometimes called a silent butler. The pantry also has a closet for brooms, and a table covered with oilcloth. It is all painted white and looks very sanitary and clean. The floor is covered with linoleum. There is a window in the pantry and the girls have planned for a window box, where the butter and cream can be kept conveniently in cool weather.



FIG. 53. — The pantry window box saves steps.

Did you ever make a window box? Here is a picture of

one. They are quite convenient. The kitchen is just beyond this pantry; and the girls have decided to plan theirs very much like Mrs. Allen's kitchen described in your textbook, *Food and Health*. It is well arranged,



FIG. 54. — A simple cozy dining room.

Courtesy of Wm. Leavens.

with the dumbwaiter to the cellar, and the woodshed and porch adjoining the kitchen in a convenient location.

Do you not think the dining room is a convenient

cheery and attractive place in which the girls may entertain their guests?

Pictures for the dining room. Jane Andrews said she would like some pictures, hung like those in the living room with vertical wires from the ivory-white molding. What pictures to choose if one can select new ones is always an interesting problem. Family portraits are not suitable in a dining room. Large pictures of fruit and cake are not in good taste. There are so many lovely sepia prints, copies of etchings, Japanese prints, and photographs of splendid reproductions of pictures of famous artists, that there is no excuse for buying ugly chromos of fruit and flowers. Do you know what is meant by sepia print? It is a lovely brown tone. We usually have too many pictures in our homes and too much bric-a-brac. A few pictures well chosen are preferable. The girls chose two for the dining room. They are sepia prints of lovely landscapes in brown frames, — one with a beautiful flowing river, and the other with mountain and lakes. Miss James thinks a Japanese print which has yellow tones in harmony with the blue wall will look well if preferred. It can be framed in a black molding.

The small entrance hall with the stairway leading upstairs was papered like the living room, and the paint of the woodwork and the floor of the same colors. This is good taste. Can you tell why? This hallway opens into the living room and is the way guests will be admitted. It connects the dining room and

living room. If they had opened one into the other, what would you think of the contrast of blue wall and yellow wall? What have you learned about unity which might cause you to change the color scheme, if one room opened into the other and both were rather

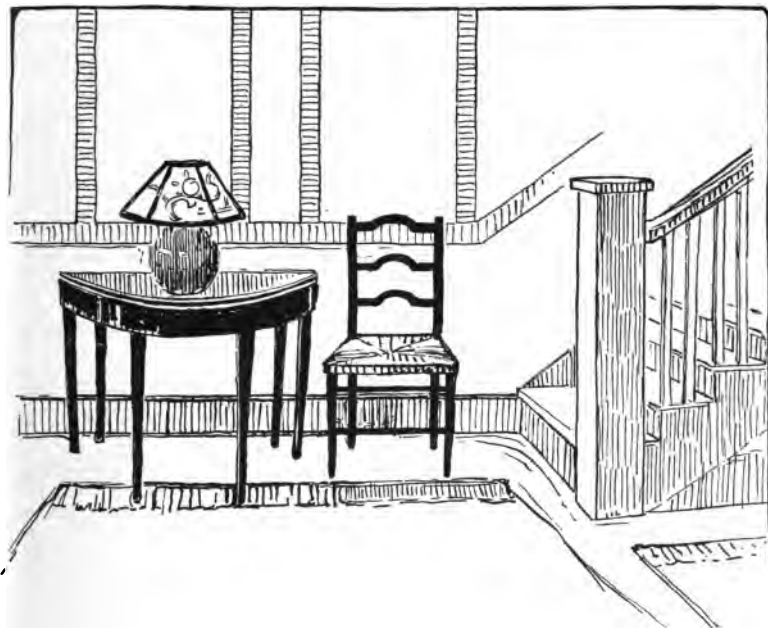


FIG. 55. — The hallway, too, is attractive.

small? What is the effect of having two rooms, or hallway and room, decorated in the same way? Do you like it? There is a small table in the hallway and a straight black chair with rush seat. There is a lamp on the table. The curtains at the door are

of the yellow sunfast like the dining room, and lend a spot of color. The rails of the stairway are painted white, and the stair is covered with a rag carpet like the dining room. This carpet extends into the little hallway above, as a runner.



Courtesy of Whitcomb and Barrows.

FIG. 56. — Ready for work — a corner of the kitchen at the Ellen H. Richards House.

The kitchen. Miss James says she must have a pretty kitchen as well as a convenient one in which to work. Figure 56 shows one corner. Does it not look as if everything were ready for action? It is certainly complete. The Pleasant Valley girls learned many things while furnishing it.

The floor was in fair condition when they took

possession of the house. Miss James had Mr. Clark smooth it off and paint and oil it. The girls would have preferred linoleum but that was too expensive. Mrs. Stark says she is saving for a kitchen linoleum, as it is so soft to the feet and keeps out dampness as well as being easy to keep clean. Mrs. Alden gave the girls two strips of good rag carpet, which are used along the side of the room near the windows. The walls were painted in this room because that is the very cleanest finish, and Miss James says the kitchen must be the cleanest place in the whole house, and nothing should be placed there which is not washable. A lovely buff color was chosen for the walls.

The furnishings were very simple. Miss James helped the girls to arrange all the pieces so as to save steps. Have you thought about this at your home? Mrs. Stark has made a real study of the miles she used to walk daily compared with her present plan. In *Food and Health* there is a lesson about saving steps.

The stove, sink, and table were well placed for convenience and so as to save steps between dining room and pantry. The sink was one of the open kind. This is preferable, for then there is no temptation to collect things beneath. Miss James asked Mr. Roberts to have the sink changed and set a little higher, as nearly all the girls had to stoop, and their backs were not in proper position for work. Miss James prefers an iron sink to one with wood trimming, and Mr. Roberts

was glad to change it when he put water in the bathroom and kitchen.

The table, too, was comfortable in height ; and Miss James bought a high stool. She says she discovered long ago that a stool in the kitchen is very valuable, for it saves much strength. Miss James says she uses it while washing dishes or ironing and often when preparing vegetables, unless she takes her work outdoors to the seat under the apple trees.

The girls planned a cozy corner too for the kitchen, very much like Mrs. Allen's kitchen which you studied about in *Food and Health*.

The trip to Mr. Alden's store for the kitchen furnishings was a great event. Mrs. English sent Miss James a check for a kitchen cabinet. You learned in *Food and Health* how useful Mrs. Allen found her cabinet to be. Then Miss James helped the girls to choose a few well-selected cooking utensils.

The problems of housekeeping are half solved at the Ellen H. Richards House because of the running water in the kitchen. What a blessing ! Of course they had Mr. Roberts to thank, for he installed the bathroom and planned for the water in the kitchen at the same time. In *Food and Health* you have studied about how some of the Pleasant Valley people planned to bring running water into their kitchens.

The girls of Pleasant Valley learned many things in furnishing these rooms, but one thing surprised them. It has been so difficult to buy good things which are

simple in line and design. When girls learn more about good furnishings and demand good things of simple decoration and design, then manufacturers will make them. You can see how much depends on one's knowledge of how to buy furniture, clothing, textiles, foods. Women must learn this spending business, as men have learned the earning business. Do you think you understand what it means to be a wise spender?

EXERCISES AND PROBLEMS

1. What ideas have you about the cleanliness of a dining room? Why is it important?
2. What do you mean by the principle of "good lines" in furnishing?
3. Bring to school pictures of chairs with "good lines," suitable for a dining room. Mount the best ones brought by the class on a cardboard mount. Why are they the best?
4. Do you like an open fireplace? Why?
5. What devices can you suggest for saving steps between dining room and kitchen?
6. What do you think about using one end of the kitchen for dining room during busy seasons such as haying time?

LESSON 4

A NAME IS CHOSEN FOR THE COTTAGE AND A PARTY GIVEN

After the home was completely furnished, Miss James thought it would be wise to name it and to have a housewarming. Do you ever plan for parties? Do you not think it is fun to entertain your friends?

The girls vote for a name for the cottage. The Pleasant Valley girls have been thinking of a good name for their cottage. What do you suppose it is to be? Miss James said they might vote. Miss James wrote all the names suggested on the blackboard. There were five :

1. The Girls' Club House.
2. The Home House.
3. The Ellen H. Richards House.
4. The School Annex.
5. The Model House.

The ballots were dropped into a box. Miss James appointed tellers to take charge of the election. They went into Miss James' little office and counted. All of the girls had voted to call it "The Ellen H. Richards House"! You know they have studied, as you probably have, about Mrs. Richards and how much she did to have homemaking introduced as a school study. Are you not glad they chose her name for their house? Perhaps you will choose it for yours, if you furnish a house near your school.

A party on Mrs. Richards' birthday. Miss James suggested that the girls have their party or housewarming on Mrs. Richards' birthday, December 3d. Isn't that a good way to celebrate that day? Mrs. Richards would have been so pleased to know that girls are learning to furnish and run a house. Mrs. Richards always believed in hospitality, and enjoyed

entertaining her friends at her home near Boston. Do you enjoy entertaining at your home? Simple entertainments give as much pleasure as elaborate ones and do not cost so much. Have you ever asked your teacher to have supper at your house and planned to surprise her by cooking some of the dishes you learned at school? Have you asked the boys and girls to come some Saturday evening and get acquainted with your mother and father and family? Perhaps mother has let you bake some little cakes, and you have made some orangeade or she has let you all go into the kitchen for a taffy pull or to make some fudge. Such parties do not cost much, and one can have a very good time. Miss James says if one is planning to live in the right way, one can always plan to spend something for good times too. Can you think of other parties you might have which will cost very little?



FIG. 57. — Mrs. Richards, who helped many girls to become interested in better home making.

The girls planned for the housewarming. Of course, everybody in Pleasant Valley was most anxious to see The Ellen H. Richards House, and to know why it is to be called by that name. Miss James divided the boys and girls into committees to be responsible for

certain parts of the work, although everybody expected to help. There was one committee of five to attend to writing the cards of invitation. This is what they put on the cards after talking it over with Miss James :

The Pupils of the Pleasant Valley School
request the pleasure of your company
at the opening of
The Ellen H. Richards House
on the birthday anniversary of Mrs. Richards
Thursday afternoon, December 3d
from 3 to 6 o'clock.

R.S.V.P.

Do you know what R.S.V.P. means? The girls made a list of all those in town to be invited and the boys helped them to write the invitations. Miss James also appointed a committee to attend to decorations. They brought some lovely greens from the woods, some holly and evergreens; and there were some beautiful golden chrysanthemums placed on the living-room and dining-room tables. This committee attended also to lighting the fires and lamps and the pretty candles in brass candlesticks, which were used to decorate the mantles. They also looked upstairs to see that the bedrooms were in order and some flowers and lights placed there.

Miss James also appointed a refreshment committee.

The girls decided to have coffee with cream and sugar, and some of the little marguerite cakes. This is the recipe which they used :

Marguerites

Ingredients

2 eggs
1 cup brown sugar
 $\frac{1}{2}$ cup flour
1 teaspoonful baking powder
1 cup pecan or other nuts, cut small.

Method of preparing

Beat eggs ; add all other ingredients. Put in individual buttered cake tins. Fill only one third full. Place nut on top of each cake. Bake 15-25 minutes in slow oven.

They made the marguerites the afternoon before. Ten of the girls helped with the cake-making while the others went to the woods for greens.

Five of the girls and five boys were appointed to serve the guests.

Then there was a committee on entertainment. They decided to give a sketch of Mrs. Richards' life and work. This story is most interestingly written in a book called *The Life of Ellen H. Richards* by Caroline Hunt. They sent to the *American Journal of Home Economics*, Baltimore, Md., for Mrs. Richards' picture and had it framed to hang in the hallway—a greeting to all who enter. Miss James told the guests about meeting Mrs. Richards at a Home Economics Conference at Lake Placid when those conferences were held there yearly from 1896-1907. The *Journal of Home Economics* will send suggestions for celebrat-

ing Mrs. Richards' birthday. Perhaps you may choose this or some other form of entertainment when you celebrate. Some of the boys and girls sang, and all together had a very happy time.



Courtesy of Miss K. Braithwaite.

FIG. 58. — The boys built this cozy spot back of the Ellen H. Richards House. The girls sew and read here, and sometimes entertain their friends at tea.

Miss James had also appointed a committee on hospitality. One of the boys on this committee told the guests at the door where to put their wraps upstairs. Miss James and five of the girls stood in the living room and received their friends, and their duties were to see that their friends were made acquainted, if any were strangers, and that all had a happy time. Of course, everybody wished to see all the details of the

house furnishing, and to know the reasons for so planning. All were most enthusiastic and voted the house a great success. Mr. Roberts especially felt fully repaid for loaning the house to Miss James and the girls, and the members of the school board were glad they had voted some money for furnishings. All

felt the furnishings were very attractive and dainty. The girls were very happy and experienced the joy which comes from the endeavor to give pleasure to others in simple entertainment. This is true hospitality, the keystone to happiness in any home, Mrs. Richards used to say. This hospitality should be a possibility in every true home, and parents should plan to bring to their homes as guests their children's friends as well as their own. It is always a pleasure when one does it simply and it is not an extra tax on mother's or sister's time or strength. The girls plan with Miss James to make the Ellen H. Richards House of Pleasant Valley a true home center where simple hospitality, welcome to friends and guests, shall be part of the home life. They decide to place this motto in their hallway and to live up to it. It was written by Victor Hugo:

A house is built of bricks and stones,
Of sills and posts and piers,
But a home is built of loving deeds,
That stand a thousand years.

Would you not like to help with such an entertainment at your school? Your teacher may be able to persuade some one in your town who has an idle house to plan for an Ellen H. Richards House. How will you decorate and furnish yours? If you do not have a home, you can have an Ellen H. Richards Day and celebrate at your schoolhouse.

EXERCISES

1. Plan with your teacher for a party at school on Mrs. Richards' birthday. What refreshments will you have?
2. Write to the American Journal of Home Economics, Baltimore, Md., for suggestions for celebration.
3. Tell how you like to entertain your friends.
4. Write an invitation for the party.

REVIEW PROBLEMS

- I. Draw a simple floor plan for the first floor of a house, arranging the rooms in the most convenient way.
- II. Write a brief description of your idea of a homey living room.
- III. If you could rearrange or refurnish your home dining room, how would you change it?



CHAPTER III

HOW SHALL THE ELLEN H. RICHARDS' HOUSE AND
OUR OWN HOUSES BE KEPT CLEAN AND IN
GOOD ORDER?

"WHERE does all the dirt come from?" said Barbara Oakes, as the girls' club was making ready one day for an afternoon gathering at the Ellen H. Richards House. "Even when we leave the rooms looking as tidy as can be, there is always something to be freshened up or dusted when we return!"

At that moment a cloud of dust floated in at the open window. "Oh, stop!" called Barbara. "Why didn't you wet the leaves in the path a little, before you began to sweep them up? And, see, you are not holding the broom the right way either."

"Wouldn't you better come out and tell me how?" was Frank Allen's good-natured reply. He had volunteered to brush off the piazza, and his strong muscles were most surely "making the dust fly."

LESSON I

DUST AND DIRT

What are some of the best ways for keeping our houses clean?

Where do dirt and dust come from? In this case from outside the house. But we cannot keep the house free from dirt unless the outdoors is clean too. Watch the street and sidewalk, or the road; for as long as



*Courtesy of American Society for Improvement
of Conditions of Poor.*

FIG. 59. — Watch your sneeze or spread disease.

careless people continue to spit on the street and walks, or even to sneeze, and to throw fruit skins and cores to decay and be ground to powder in time, not only shall we have dust in the house, but dust of a dangerous kind.

Pleasant Valley is a township where thrifty farms lie side by side over many square miles, and where the post office, churches, and stores make a center known as the village, the school and the Ellen H. Richards House standing where the village street begins to change pleasantly to the country road. The townspeople have put oil upon their street and roads for several years, but are learning that calcium chloride makes a harder, better surface, that it lasts longer, and that it lacks the disagreeable odor of the heavy oil used for laying

the dust. The cost depends upon the road — which must be hard and in good condition. The number of times it is put on depends upon the traffic on the road. This granulated calcium chloride is a clean white chemical salt that does not injure rubber tires. It does not



Courtesy of Semet Solvay Co., Syracuse, N. Y.

FIG. 60. — What is the condition of the roads in your home town?

discolor the road. The tests have shown that it destroys most of the bacteria present in the dust. It also kills weeds.

How the young people can help the town. The Boy Scouts of Pleasant Valley made a number of posters which were displayed at the post office and in several other places where people could easily see



FIG. 61. — The can which was quite the fashion at Pleasant Valley.

them. Miss James asked the boys to paint a galvanized-iron can to stand on the walk in front of the Ellen H. Richards House. (Fig. 61.) The color was a dark shade of green that harmonized with the grass and shrubs and trees, and on it white letters were painted, — “Use Me for Fruit Skins and Papers.” Cans of this description became quite the fashion and were placed along the village street. At regular intervals the boys emptied

and burned the contents where it was perfectly safe to have a fire.

Here is a sketch (Fig. 62) of another can standing in the space behind the Ellen H. Richards House, made of wire netting, for papers, old cloths, and other things that can be burned. In a village one should be careful to put nothing in that will have a disagreeable odor. One of these behind the farmhouse is a great convenience, and when it becomes full, all that is necessary is to touch a match to the contents and let them burn out.

You see that we have spoken of dust from the road; but there are other sources of what we call dirt.

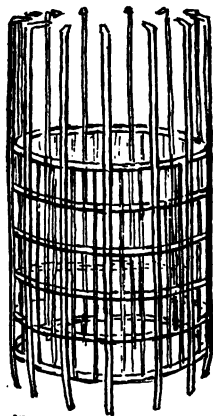


FIG. 62. — A good receptacle for papers and things to be burned.

What is dirt and when is it dangerous? Someone said, "Dirt is matter in the wrong place." This definition is not far from correct, although we do not always use the word precisely. When little sister Alice has cooky crumbs around her mouth, the "matter" is certainly out of place, but it is not dangerous dirt. If you could look at samples of dust and dirt through the microscope, you would be puzzled to describe what you are seeing, — lint from garments, coal dust and wood ashes, stone or rock ground to powder, bits of decayed leaves, particles of skin and hair from human beings and animals. None of these are in themselves hurtful, except that, if we breathe dusty air, the head and throat may become irritated, and then we may be a prey to our invisible enemies, the germs of disease. In the picture (Fig. 63) you see what is sometimes called a dust garden. A plate of soft gelatin has been left uncovered in a dusty spot, then covered and set away, and each single spore of mold and each bacterium has flourished and increased. Miss James is always careful to remind her classes that many bacteria are helpful, some of them at least not hurtful, but that one cannot tell when the germs of diphtheria, tuberculosis, grip, and other diseases are present, and so the fight against dirt can never end.



FIG. 63. — Have you ever grown a dust garden?

Finger marks on paint and windows, grease spots on clothing, belong in the class of untidy things, but they are not dangerous, unless some one is suffering from a skin disease.

We must add to the sources of danger our own bodies when they are not in good condition.

Other forms of waste. Old tin cans, old iron scraps, old shoes, are unsightly, and if thrown down with waste papers may become danger spots. The cans will hold water where mosquitoes multiply, and in any mass of waste matter there is always the chance for the unwelcome bacteria, or "germs." Think of health and beauty too, and find some way of disposing of this kind of refuse. The iron can be sold, perhaps. Mr. Groves of Pleasant Valley has a way of setting out a few fruit trees each year. He digs a deep hole *long* before, and into that hole are put old cans and iron scraps to be filled in before the tree is set, the hole having a board cover until that time.

What more can we do in our campaign against dirt? We find a strong ally in Nature, for sunshine, air, water, earth, and fire are our good friends. Harmful bacteria cannot live in sunlight and dry air, and water is a great cleanser. Fire will rid us of harmful waste matter, the intense heat of an oven or boiling water will destroy bacteria, and some materials buried in the earth not only become harmless, but will be useful to us as fertilizer. To these natural purifiers we add substances like soap, sand or gritty soap, washing

DUST AND DIRT

powders, soda, lye, ammonia, kerosene, some of which are destructive of harmful bacteria, and remove grease; and stronger chemicals are useful during illness and afterward.

Then we ourselves scrub and shake and brush and rub, and nowadays we have machines that are even better



FIG. 64. — Not a ray of sunshine can get in.

than the old fashioned brushes and brooms. Does it seem quite right to take a dusty carpet into one's back yard and beat out the dirt to blow into other people's windows as well as into our own? Where a house has wide space about it, it is quite a different matter, although even then we should watch the way of the wind, and not do our beating and shaking out of doors when the breeze will return the dust to the house.

~~Sun and air in the house.~~ It is a mistake to keep rooms dark and windows closed, thinking in this way that we save the color of our best carpet and hangings, and that dust is kept out. Such a closed room soon becomes musty, and no furniture is so precious as the health of the members of the family. Keep blinds open



FIG. 65. — An old-fashioned farmhouse with plenty of shade.

and air unused rooms very often. Screens to keep out flies are necessary, and in climates where there is much dust in the summer it is well to use cheesecloth over the screen. Germs of disease do not flourish readily where sunshine and fresh air are constant visitors.

We must study the exterior of our house and its surroundings in order to insure sunlight. The picture

(Fig. 65) shows an old-fashioned house where there is plenty of shade to enjoy, but where the space between the trees and shrubs and the house is wide, allowing the sun to rest upon the roof and sides of the house, even in summer. This has been true during the life history of the dwelling, which is now nearly 200 years old. With a damp cellar and heavy shade about the house, there is more danger of illness and chronic disorders than in a dry and sunny house. When you build a house, it is better to let the corners of the house stand north, south, east, and west. Can you see why this will give the house more sunshine?

What tools do we need? A cleaning equipment is just as important in the house as a set of good tools in a carpenter's shop, or as a box of colors and brushes to the artist. Have you ever thought of cleaning as artistic work? Nothing can be beautiful unless it is clean, and you are adding to the beauty in your home as well as to its healthfulness in all the sweeping and dusting and washing that are so necessary.

The picture (Fig. 66) shows a closet in the Ellen H. Richards House. We need a supply of stiff brushes and soft brushes, with long handles and short handles, and plenty of cleaning cloths and soft paper. Hang two bags or a bag with pockets on the inside of the broom-closet door, and use one for soft papers that come as wrapping and for pieces of cloth. The dusters should be of hemmed cheesecloth or outing flannel, and,



Courtesy of J. B. Lyon Co.

FIG. 66. — This closet in the Ellen H. Richards House is well supplied with the necessary tools for cleaning.

although the stitches do not need to be fine, they should be firm. The dusting cloths should never be put away uncleansed. It takes but a few minutes to

wash out a duster and dry it thoroughly before folding it away, ready for action again.

Where does the power come from to use the tools? "Is cleaning good exercise?" was a question that one of the mothers asked Miss Travers of the State College at a meeting of the Women's Club. "That all de-



FIG. 67.—Are you growing round-shouldered because you are not working properly? These are good positions for sweeping.

pend," said Miss Travers, "upon how you do it. The position of the back and limbs in using a broom, in washing dishes, in scrubbing, will decide the question."

Miss Travers then drew a few sketches on the board and held a broom in different ways herself to make her meaning clear. If you study the pictures (Fig. 67) carefully and take the positions one after the other, you

will realize the importance of knowing how to hold a broom.

Why, however, do women use so much of their own muscular and nervous strength when machinery will help them just as it does men on the farm? Every machine has a way of making one motion of the muscles accomplish much more work than the muscle alone can do. You all know that this is true of the sewing machine, and the egg beater; and, if you have used a bread mixer or a meat chopper, you appreciate how much help they give. The same is true of washing machines and of some of the new kinds of cleaning apparatus, for the carpet sweeper of a good make saves much energy. This is true of the still newer vacuum cleaners and scrubbing machines as well. We shall study these in the lessons that follow.

Water power and electricity for housework. If you have the good fortune to live in a town or country place where you have a high water pressure, this can be used for household purposes just as well as for grinding in the mill. More fortunate still is the town where electricity is developed—perhaps from some waterfall. It may be that some one who is reading this book owns a farm where there is sufficient power in running water to turn a dynamo, and thus supply electricity for farm and house use. Where the electricity is furnished by a corporation, for instance where there is a trolley system, it is rather expensive; but think what a wonderful saving of human energy



Courtesy of Domestic Utilities Company, Newark, N. J.

FIG. 68. — The electric dishwasher is a great time and energy saver.

when the electricity runs the cream separator, the churn, the washing apparatus, the dish washer, the sewing machine. We may not all use electric power at present, but it is something to study and plan for in the future.

No one need fear that in a large household and on the farm the members of the family will suffer from lack of exercise where electricity is used. How much better for the mother and daughters to do the laundering rapidly and well with an electric washer, wringer, and irons, leaving time for garden work and healthful out-of-door exercise! There is no virtue in doing work in the hardest way possible, if it can be made easier. Where the women of the family are earning pin money, labor-saving machinery is a good way for spending a part of this income.

EXERCISES AND PROBLEMS

1. Ask your teacher to help you to grow a dust garden. Have you a microscope at your school? If so, examine the garden.
2. What are you doing in your town about refuse? Are you making plans to collect such things? Can you do as the Boy Scouts of Pleasant Valley did?
3. How do you plan at your house to have plenty of sunshine? Are you afraid of spoiling the carpet?
4. What power do you use for running your household machines?

LESSON 2

TAKING CARE OF THE BEDROOM

How can a girl help to keep her room tidy and clean?

We need to plan for the daily care of each room, and when this is carefully done, the weekly cleaning is much easier. Remember that while you may think the room more attractive with many of your pretty ornaments

about, these all add to the quantity of work to be done, both in every-day and at the other cleaning times. Can you not plan to have only a few things on your bureau top and change them from time to time?

What shall we do in the morning? After your toilet is finished, look at your bureau to see that everything is tidy. This is the way the girls at the Ellen H. Richards House did. It would be well to take a look into that upper bureau drawer to see if each kind of thing is neatly arranged by itself. See that the garments that you have worn at night are hung upon a chair where the fresh air can reach them by the open window. Then, you are ready to attend to the bed, which you probably threw partly open when you first arose. Never omit the airing of your bedclothes, although, in very damp weather, it is best not to hang them by the wide open window, unless you can dry them off later. For a partial airing put a chair at the foot of the bed with the seat toward the bed, and throw the bedclothes over it. Several times in the week it is well to take everything from the bed and hang on chairs by the window, or perhaps on a screen. This is very necessary in winter when we use much bed-clothing. We must remember, even when we have good bathing habits, that during the night much waste matter passes from our bodies through the skin, and the odor in the bedroom becomes very disagreeable without this freshening of the sheets, blankets, and covers. After a spell of wet weather, it is always a good plan to hang

the blankets and covers in the sunshine out of doors. Remember always to have a cover over the mattress underneath the first sheet. We must also be particular to care for the mattress. It should be turned daily and sometimes taken entirely from the bed and sunned by the window. This is a good time to brush it and also to wipe off the bedstead and springs. If you should



FIG. 69. — Bed making at the Ellen H. Richards House has become an art. At the contest Jane Andrews made the best looking bed. Notice how she folds the corner.

be so unfortunate as to have troublesome insects brought into the house, the bedstead should be taken apart and carried out of doors and treated with kerosene. Fortunately this does not often happen in the country. If you chance to be very much troubled by the insects under the paper or in

the woodwork, do not be alarmed. Removing all the paper, going over all the furniture, and varnishing the floors and woodwork will rid the house of these pests.

Making the bed. People sometimes are so anxious to have the room look orderly that they do not allow for the proper airing of the bed linen. When it is thoroughly fresh, then is the time to put it back neatly upon the mattress. The under sheet should be drawn tight at head and foot, on both sides, and the corners

neatly folded in. Put on one article at a time, tucking them in separately, and turn the upper sheet down over the blankets and other covers. The pillows should be shaken and beaten a little and neatly placed. Fresh linen should be put on weekly. The custom of using the upper sheet for the under sheet is quite common, but when people are ill both sheets must be renewed frequently. Nothing is more unattractive in a bedroom than a poorly-made bed, and nothing is more uncomfortable for a weary person.

Bathing arrangements in the bedroom. If there is a washstand, with slops to be emptied, this is a most important feature of the daily work. There should be no odor to any of the toilet articles. They should be emptied and washed with clean soap suds, rinsed, dried, and aired. Do not forget to wash out the water pitcher.

A few other little things. Look out for scraps, burnt matches, and hair. See that these are all in the scrap basket, and this scrap basket emptied daily. The amount of dusting and brushing to be done depends upon circumstances. Sometimes a very little dusting will suffice. When you finally leave the room, it is a good plan to set your closet door ajar for airing and to leave the window open at least a little way.

One point about which we should be very careful is the care of our shoes in the bedroom. Remember that they are one of the coverings of our body that come in direct contact with the ground constantly. We should

begin to think about our shoes before we enter the house and should wipe off everything that we can. Dirty shoes should not be set away in the bedroom closet. They should be wiped off, sometimes with a damp cloth and dried by the window, and it is much better to have the shoe bag outside of the closet if possible. Dusty outdoor garments should not be hung in a bedroom closet. Your rubbers of course you leave down stairs, possibly in some tidy way on the porch, or inside the house in some entry. It would not be easy for us to follow the Oriental custom of leaving all our shoes outside, but we can hardly be too careful.

The weekly cleaning. Of course, this a girl will do herself because this is one of the ways in which she can lighten the work for her mother. Take a look at your bureau drawers. It may not be necessary every week to remove the articles, but dust collects much sooner than we think. The bureau drawers should all have clean paper in the bottom. This will last for several months. After the drawers are in order, look at your closet to see if everything is hanging straight, if anything needs brushing, or airing outside. Wipe the closet floor with a soft cloth. Occasionally it is a good idea to take everything out of the closet and wash the walls and floor, although this must be done in very dry, sunny weather. You are ready now for the more serious work. Notice the picture (Fig. 70) of Mollie Stark ready for action. She has protected her hair from the dust and is covered with a large apron, as you see.

First Mollie takes to the room everything that she will need in the way of tools, — a soft dustcloth, a small brush and dustpan, a long-handled broom with a clean cloth tied over it. She also has a basin of water with a little ammonia and a cake of soap. First she dusts off all the small articles on her bureau top and puts them into the bureau drawer. The larger articles on the table, a few books and so on, she dusts and places on the bed with a cloth below and another cloth to cover. Then she wipes down the ceiling and walls with a covered broom and dusts off the pictures. Her rugs she rolls up and carries down stairs and puts on the grass quite a distance from the house and then beats them with a bamboo beater. At the same time she carries the cushions in her chair out of doors and leaves them where they will sun and air.

The floor of her room has her attention next. The bureau is on casters and moves out easily, and, as there is no carpet on the floor, Mollie, using very gentle motions, gathers up the dust with cloth over the broom. If it is a dry day, she washes up the floor after this, but if it is damp she rubs the floor off with an oiled cloth. If Mollie lived in the city,



FIG. 70. — Mollie Stark ready for action. How capable she looks.

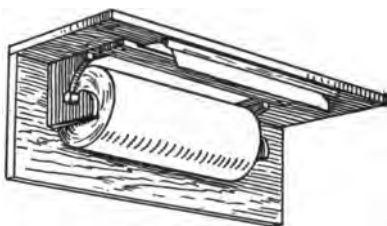
she would wash her windows every week. Her country windows do not need it so often as that. She does, however, wipe off the window sill both inside and out. The furniture is rubbed off with a soft cloth, and at least once a month Mollie rubs her furniture with some oily material. She finds what is called "lemon oil" extremely good for this purpose. The looking glass and the pictures have their faces wiped. Sometimes at a dusty time Mollie goes over the room twice, leaving a little time for the dust to settle in between. Finger marks have to be wiped from the paint. Then all the things are put back again, and indeed it is a bright and shiny bedroom when the work is finished.

A room that is cared for in this way does not need a very strenuous extra cleaning at any time of year. Marjorie Allen's scheme of work is a little different from this because Mrs. Allen has a vacuum cleaner, and Marjorie uses it on her rug. She also applies the vacuum cleaner to her cushions and to her mattress on cleaning day.

Cleaning the bathroom. Some one has said that the bathroom is the test of good housekeeping. Where several members of the family use the bathroom and the basin, each one must be trained to leave the tub or the basin spotlessly clean. In these days our tub is of enamel; and how selfish and unkind it is and how disagreeable the tub looks when it is not thoroughly washed out with soap and water, rinsed, and dried.

The shelf on which small toilet articles stand should have no spot upon it, and soap dishes, mugs, and brushes must be left in perfect order. It is bad manners to leave a cake of soap dirty or even wet. Miss James said one day that many people who are otherwise dainty and who seemed well bred are most careless in these respects.

Be careful to hang up towels and wash cloths and never leave them when they are not fresh. Clean towels are an absolute necessity. In a large family the rolls of paper are sanitary, convenient, and saving of labor. All parts of the toilet should be wiped off every day and the basin thoroughly scrubbed out when it



*Courtesy of Extension Department,
Ohio State University.*

FIG. 71. — A convenient roll of paper.

shows the least sign of discoloring, sometimes oftener than once a week. Wiping the floor daily and scrubbing weekly is none too much. The bathroom cannot only be odorless, but it may have as fresh and cleanly a smell as any room in the house. If there is the least odor of unpleasantness, something is wrong. Once a week put ammonia and water down all the basins, and, if the water is hard, a strong solution of soda may be desirable. In case of illness, whatever is put down the toilet should be disinfected with carbolic acid, or something recommended by a doctor before this is done.

What shall we do when there is no bathroom? Some place should be provided for comfortable bathing, if it is nothing more than a room in the shed with some metal tub for the bath. For warm weather one family in Pleasant Valley uses a tent, and as there is running water the cold water comes from the hose. Hot water is taken out from the kitchen, and water from the tubs is used for flower beds. In winter, if the bathroom is in the shed, an oil stove can be used for the heater. The same rules of cleanliness apply to any place of this kind and to the toilet. There is no excuse for the accumulation of any kind of dirt anywhere upon our premises.

Soap and water will clean the tub after each bath, the soap to be followed by a thorough rinsing and wiping. If there are spots, do not use any rough soap upon the enamel, but try first a little kerosene and ammonia. Remember to clean both the bathtub and basin outside and underneath. Be especially careful to wash out thoroughly all cloths and brushes used in the bathroom and to dry them in the sun and air.

EXERCISES AND PROBLEMS

1. Plan a bed-making contest at your school, like the girls of Pleasant Valley had at the Ellen H. Richards House. Your teacher will make a score card.
2. Write 100 words describing how you care for your bedroom each day.
3. Why is the care of the bathroom very important?

LESSON 3

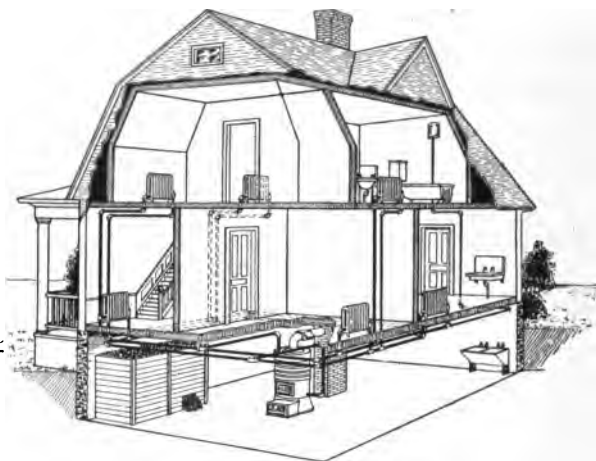
CLEANING THE LIVING ROOM AND DINING ROOM

What are the best methods for keeping clean these rooms that we must use constantly?

Cleaning lessons at the Ellen H. Richards House. These lessons were something that the Pleasant Valley girls looked forward to as giving them a thoroughly good time. Not only did they enjoy the appearance of the rooms after the work was done but they found cleaning itself really very enjoyable. Miss James tried the plan of using the score card, and the girls all assured her that it seemed to help them do the work well, for it made them all try to work in the very best possible way. The work was divided among the different girls, and the groups were not so large that they interfered with each other.

The living room in the Ellen H. Richards House is heated by a coal stove in winter as well as by an open fire, and of course this always, in spite of great care, makes quite a little dust in the room. Miss James' stove is of the kind that has the coal put in at the top, the ashes removed from below, and, as this is done at regular times of the day, the fire will keep several weeks. A number of people in Pleasant Valley are introducing other methods of heating the house in winter in place of stoves, because with a furnace or a hot-water system the heat is even throughout the house and the labor is really less. The Starks have a hot-water

heating system and, although the picture is not a plan of their house, it shows the way in which the heat is carried over the house. Mr. Wright, the proprietor of a hardware store in Pleasant Valley, who attends to the plumbing all over the township, recommends hot-water apparatus, especially for putting into old houses,



Courtesy of E. S. Keene, Mechanics of the Household.

FIG. 72. — The low pressure hot-water heating system applied to a small dwelling.

and into a new house as well. The first cost is greater, but the expense of running is not larger than that of the hot-air furnace, and, after the system is put into operation, it is much more satisfactory than the common furnace. It gives even, steady, and moderate heat which varies very little. In any system, whether stove, furnace, or hot-water, we must provide for

the admission of fresh air and the passing out of bad air.

Fresh air in the house. Miss James explained that letting in fresh air and removing the bad is a part of the process of keeping our houses clean. When we have stoves this can be done, especially if we make an opening into the chimney for the letting out of the bad air. Boards in the windows with cheesecloth over the opening give a simple way of supplying fresh air. Air the room out frequently every day and sleep with the bedroom window open. Some people need to be protected from the draught or from the breeze coming directly from the window; and, if you are not used to it, change your habit by degrees. This is the way to keep one's self vigorous, and, as you know, it is a cure for the first stages of tuberculosis. Some people in Pleasant Valley are putting on sleeping porches, and one member of a family who showed tuberculosis symptoms slept in a tent. Do not let yourself be chilled, but wear warm night clothing, and when out of doors sleep between wool blankets.

Cleaning the living-room stove. This was Mollie's task on cleaning day. Like all the other girls Mollie was equipped with a cap and clean apron, and she slipped on a pair of old gloves. A hod of fresh coal was put in at the top. Then Mollie gently used the shaker; and, when she was sure that the ashes had settled in the pan, she took a newspaper, pulled out the pan, covered it quickly with the paper and carried it

out of doors. When the ashes were cool, she put them into the ash bin. On top of the stove there was standing a pretty brass bowl which was kept filled with water to keep the air of the room from becoming too dry. Mollie took the brass bowl and other metal articles to the kitchen, and gave them a thorough cleaning.

How did Mollie clean the metals? For the cleaning she placed on the table on a piece of paper, some cottonseed oil, rotten stone, a piece of old flannel, a piece of soft dry cotton cloth, a saucer and a soft brush, and a bottle of oxalic acid. The rotten stone, as its name shows, is a powdered stone. The oxalic acid is a poison and should be marked so, and it also affects the skin. These substances are much better to use on brass and copper than any of the strong cleaners that come in tin cans, and are also cheaper. Mollie first washed all the metals in clean soap suds and rubbed off the spots with oxalic acid. The oxalic acid should be very weak, — a tablespoonful to a quart of water. Mollie then mixed up the oil and rotten stone in the saucer and rubbed each article with it. It needs a strong muscle to do this well. The brush was used for the crevices and corners. Mollie rubbed off the paste with another cloth; then washed each article thoroughly in hot soap suds, rinsed, and dried them. The final polish was given with another soft cloth. Some people use chamois skin for the final polish, but an old kid glove will do very well. All the cloths were washed out except one with which the paste was put on, and that

was burned in the stove. If you use a chamois skin, use tepid water and soap. Hot water stiffens the chamois.

Cleaning the pictures, walls, and ceiling. At the same time Barbara Oakes was wiping off the glass of the pictures with a soft cloth wrung out from ammonia and water, and drying them with another cloth. She then dusted off the frame, gently dusted the back of the picture and the wall behind it, and covered each picture with cheesecloth. Then the ceiling and walls were dusted down with a piece of cheesecloth fastened about the string mop. There was so little dust discovered that it was not necessary to dust the mop before using it on the floor. Barbara then dusted off all the woodwork with the soft cloth. For a special cleaning Miss James said that paint could be wiped off with borax in warm water, and, where there is no paint, kerosene is useful for this purpose. But little kerosene is necessary, and this should be rubbed off very thoroughly. It is a good idea to give it a polishing an hour or so afterward. Use small pieces of cloth for the polishing and burn them, and protect the hands with old gloves.

Taking care of the ornaments and furniture. Marjorie Allen took down the small ornaments, dusted them, and took them out into the kitchen. She had a brush and soft cloth for the furniture. The chairs were taken out on the piazza, cushions beaten, and the chairs brushed and wiped off. This of course does not

need to be done always when the room is cleaned, and it is impossible in bad weather; but once in a while the girls like to make the cleaning as thorough as possible.

The piano and other polished surfaces. Elizabeth Groves asked if she might be allowed to give the piano a thoroughgoing treatment. She had heard Miss James describe the method. They all felt responsible because the piano was a loan, and they wanted it to be found in perfect order. The polish of the piano was very fine, and Miss James' method was one that she learned from a piano factory where they renovate old pianos. The apparatus consists of a basin of tepid water, a sponge, and a chamois. Wash the piano with a sponge, wet and partly wrung out. Wash very thoroughly, rubbing hard, taking not more than two square feet at a time, or even less. Wet the chamois in the tepid water and wring it as dry as possible, and then polish the spot that has just been washed with the sponge. The curious thing about this treatment is that the chamois must be used wet. The result is very satisfactory, but it takes so long a time, that Elizabeth found that she was glad to change off with one of the other girls and rest her muscles. If the piano is treated this way perhaps twice a year and has a good daily dusting, it will need no other polishing. If the surface is scratched, it is a good idea to use a little oil afterward. The "lemon oil" already mentioned is very good for this purpose.

Using the vacuum cleaner. All the girls were especially interested in this, and they wanted to take turns in practicing with it. You notice, do you not, that everything in the room has been dusted and the floor wiped up with the string mop, the cleaning of the rugs by the vacuum cleaner being left to the last? Why is the vacuum cleaner a good method for upholstered sofas, chairs, rugs, portières, and mattresses? The girls did not find this difficult to answer, because a cleaner draws into a bag all the dust and dirt on the surface and even within the article. This bag is then removed and the contents emptied gently into the stove, where they are burned, and anything that is left is of course removed with the ashes. In summer, when there is no fire in the stove, the dust from the cleaner bag can be gently emptied into a paper bag, which is put into the receptacle of burnable things awaiting the fire out of doors. Elizabeth Groves told the story of her aunt, an old-fashioned and very good housekeeper who felt perfectly sure that there was no dirt in her rooms to be taken out by a cleaner of this kind. She had an old-fashioned parlor or best room kept closed for company. When Mr. Wright called one day to ask if he could sell her a vacuum cleaner, she said, "I will buy one if you can find any dirt." He took the

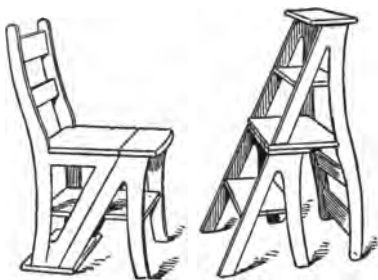


FIG. 73. — Have you a vacuum cleaner?

cleaner into her best parlor and went over the carpet and sofa and chairs. Then he took the bag to her, opened it, and it was almost full of fine black dirt. She immediately ordered the new cleaner. There are several kinds of vacuum cleaners on the market at many different prices; and as in the case of all other machines, it does not pay to buy the cheapest. Most of us need to have the kind that runs by hand, although, of course, if we have electricity in the house, we save our own energy by using this power. The girls used the cleaner first on the right side of the rug, and then turned it over and used it on the under side. Any dust left on the floor was wiped up with a soft cloth. It is not so easy to take dust from a polished surface with a vacuum cleaner, but it will remove dust from cracks in the floor, and it is the best possible way of taking dust around the buttons of the upholstered sofa and the tufts on a mattress. There are some people who still prefer the old-fashioned broom, but Miss James said to the Women's Club that, while sometimes it seems as if one uses as much muscle with the cleaner as with a broom, the dust is really removed safely and does not fly about in the air. She asked them to notice the difference in the odor of a room that has just been swept and one where the vacuum is used. Have you learned to detect the smell of dust? The windows were left until the last.

Cleaning the windows and shades. Dolly Adams was assigned to this task. Dolly said, "Why, I never

thought of cleaning the shades except once a year." Dolly took the convenient step ladder to the window, rolled up the shade, took it down, took it out on the piazza, unrolled it, and dusted it. She then stood each one near its own window. She had ready a basin of ammonia and water, a cloth of flannelette or outing cloth, a soft brush, and a towel that was not linty, and some soft paper. If the water had been hard, she would have added a few drops of kerosene. Dolly dusted off the woodwork with the flannelette cloth slightly dampened. She then washed the glass, dried it with the towel, and polished it with the paper. She told Miss James that sometimes her mother, instead of using water, made a paste of whiting and water; and another girl said that her mother used a soap "that has not scratched yet." Miss James said that the difficulty with both of these is that while they leave the glass very shiny, there is a white dust left to blow around which must be wiped up very carefully. There is running water and a hose at the Ellen H. Richards House, so the windows were hosed off outside. When this cannot be done, the outside of the windows



*Courtesy of Extension Department,
Ohio State University.*

FIG. 74. — A convenient ladder chair like the one Dolly used for cleaning.

have to be washed. Some people take out the sashes for this purpose.

Cleaning the lamps. The lighting at the Ellen H. Richards House is done by lamp and candle. Miss James has a student lamp—with a green shade for her study in the evening, and always she is careful, as she has told the girls, to have the light over her left shoulder, for both reading and writing. The lamp in the living room is of a simple design with a wicker shade lined with a soft yellow. Whether one uses lamps or electricity, the shading of the direct light is very important to the hygiene of our eyes. If your living room is lighted by a kerosene lamp hung in the center, have some arrangement below the light made of soft paper to keep the glare from the eyes. A light at the side of the room or standing on the table is much better for all purposes than a high light. For people who can use electricity there are now most beautiful arrangements where there seems to be hanging in the room a bowl of light, the shade being below rather than above. The soft shade makes the light even all over the room without any over-bright spot to try the eyes. Train yourself to be careful of the eyes in this respect. Miss James added this when she was talking about the shading of the light, "Never read lying down, because the eyes are put out of focus and the muscles are strained." Avoid a red shade to a lamp except for brief times, as, for instance, at some entertainment when you want a bright spot of color. A soft yellow is

much better than red; and there are oculists who prescribe yellowish glasses for people who need extra protection from strong light. Phoebe Carey had collected all the lamps in the house and put them on the table in the kitchen where she had spread out paper to protect the white table oilcloth. She had ready a basin of water with ammonia, a soft cloth, paper, and the kerosene in a convenient can, holding not more than two quarts. Phoebe removed all the lamp chimneys and washed them one at a time in a basin at the sink, wiping and polishing each one with soft paper. She filled each lamp, using a small funnel for the purpose. She then rubbed off the burnt portion of the wicks with paper. Miss James had told her not to cut the wick. Then every part of the lamp that could be reached was washed off with soap and water, and dried. Miss James told her that one of the lamps had begun to have a little odor, so that burner was taken out, the wick removed and put into the stove to burn, and the burner put into an old saucepan with a solution of washing soda and water to boil until it was perfectly clean. Miss James said that she would let it stay all day and put the wick in toward night. There is never any need of an odor from a kerosene lamp. Some people believe in filling the lamp daily, but of course this depends upon the size of the oil tank and the length of time that the lamp is used.

Finishing off the room. Everything was then put in place, and the class agreed with Miss James that the

room really was a work of art. Miss James had kept the score, announced it to the girls, and said that she really felt that they had all scored 100. They then opened the piano for a song. Elizabeth exclaimed, "Oh! I forgot the piano keys," hurried to bring a damp soft cloth, and wiped them off carefully. Then they sang together one of their favorite club songs.

What shall we say about the dining room? There is no difference to be noted in the cleaning of the dining and living rooms except that with the former we have to care for the silver. The class of course did not have time to clean the dining room and living room in one day, but Alice Carey was very proud to do her piece of work, which was polishing up the silver in the dining room itself. Usually it would be done in the kitchen, but you can see that there were several busy workers at the table and sink. Miss James supplied her with whiting, and ammonia, and several pieces of soft cloth; also a soft brush for one or two pieces of fancy silver. Miss James said that she had found some black specks on her silver, which perhaps came from a bottle of sulphur that she had in the kitchen. A tiny speck of sulphur about, if it lies upon the silver, will make a black spot, and of course the sulphur in eggs is a cause of discoloration. The ammonia is to take off the black specks, and should never be used on silver except for this purpose. Miss James also said that it is much better to use the old-fashioned whiting or some

substance recommended by a dealer in silverware, rather than the patent polishes which agents are so anxious to sell. We want to remove as little as possible of the dull surface, and strong chemicals take more than is necessary and thus wear the silver thin. Alice moistened the whiting with water and rubbed it over all the silver pieces. When it was dried on, she rubbed off all she could with another clean soft cloth. The brush then took the whiting out of the cracks. Finally the silver was all washed off in clear, hot soap suds made from one of the white soaps, rinsed in boiling water, and wiped with a clean cloth before putting away. Alice looked about to see if any of the dust from the whiting was left in the dining room. Such cleaning as this is not necessary more than once a month where the silver is well cared for daily. Buy plain patterns and have just as little silverware as possible, and it will not be difficult to take care of it.

A few more points about cleaning. The important thing, as you must see, is to really remove dust and dirt, and not simply to change it from one place to another by flourishing about with feather dusters and brooms. An important thing in all our housekeeping and furnishing is to make work easy by having just as few things as possible. Why should we spend money for more furnishings than we need, and thus make labor heavy and our homes less beautiful and usable? Another important point is order in work. One secret of success in housekeeping is to have order in place,

and order in time. Long ago in ancient Greece the historian Xenophon reported Socrates as saying:

"How excellent a thing a regular arrangement of articles is, and how easy it is to find, in a house, a place such as is suitable to put everything. But how beautiful an appearance it has, too, when shoes, for instance, of whatever kind they are, are arranged in order; how beautiful it is to see garments, of whatever kind, deposited in their several places; how beautiful it is to see bedclothes, and brazen vessels, and table furniture, so arranged; and (what, most of all, a person might laugh at, not indeed a grave person, but a jester) pots have a graceful appearance when they are placed in regular order."

And we can say that not only is order beautiful, but a saving of strength and time. Do you ever find everybody at home a little disturbed and uncomfortable because some one person cannot find some one thing? Once when Mrs. Allen thought that her family was becoming a little too careless about leaving things around, she had a place that she called the "pound," and when she found any article out of place she put it in that box.

EXERCISES AND PROBLEMS

1. Tell how you would plan to clean your living room at home; your dining room.
2. Talk over with your teacher the way in which your house is heated. How does the heating affect the cleanliness of the house?
3. Do you plan for fresh air at your house? How?
4. What systematic method of caring for lamps do you use at your home? Talk this over with your teacher.

LESSON 4

CLEANING THE CELLAR, KITCHEN, AND PANTRY

Why is it necessary that the cellar, kitchen, and pantry be as clean as the hall and living room? How shall these parts of the house be kept clean and healthful?

Why is it important to have a good cellar and to keep it clean? Have you ever watched a plant slowly wilt and die for no reason that you could discover until you dug into the ground and found something the matter with the roots? Something like this is often true of our houses. We attend to everything above the ground level, yet there is a dampness in the house and an odor of moldiness and almost of decay. The question to ask then is "What is the matter with the cellar?"

Making the cellar strong and dry. Like many old-fashioned farmhouses, the Starks' solid, well-built house stood on a strong foundation of large stones with an earth floor to the cellar. In spite of Mrs. Stark's thorough cleaning and airing, there was quite often a musty smell in the living room, and during a damp spell in summer, mold would sometimes grow on articles left in a closet on the ground floor, in spite of the fact that the house stands high and the earth is sandy and well drained. Another fact that Mrs. Stark noticed was that even on a warm day in summer the floors in the lower story were too cool if the windows were left closed. Mrs. Stark and her husband began to study the question. Mrs. Stark brought up the question in

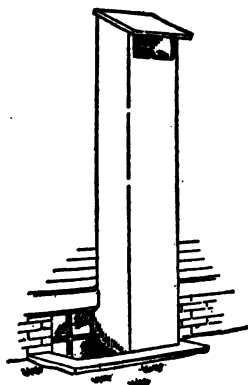
the Women's Club and sent for advice to the State College. The Starks decided to use some of the money laid by for new furniture, in remodeling the cellar. The ground was dug away outside, all around the house, and a few inches below the lower stones of the cellar wall. Spaces between the larger stones were filled in with small stones and Portland cement, and a covering two inches thick of this cement put over the whole foundation. Windows were built in on all sides, and screened so that nothing could enter when the sashes were opened. Inside the cellar the floor was leveled and two or three inches of finely broken stone placed over the earth, and over this two inches of Portland cement were spread. The walls of the old cellar within were rough, and in order to make it easier to keep this surface clean, the cement was used to line the inside of the cellar wall. They were surprised to find how much difference this made in the dryness of the house and in its warmth during the winter. There is no doubt that rheumatism and other troubles come from the damp and the coolness of the old-time cellar.

Mr. Stark has underground storage for his vegetables out of doors; but they partitioned off a place in the cellar for fruits and vegetables. (*See Food and Health.*) The cellar was then all ready for the heater, which they planned to put in the next year.

"But we have no cellar under our house," some one says; "what ought we to do?" This question was asked one day when Miss Travers was talking to

the Mothers' Club. Miss Travers said that in Maine she had seen a house standing on solid granite, which is the foundation on which the State of Maine is built, and as the house was exposed to wind from the ocean it had to be anchored by chains. Miss Travers thought there could be no objection to a foundation of this kind; but usually where there is no cellar something should be done to avoid dampness from the earth. A layer of sand under the house is a help if nothing else can be done. Miss Travers advised planning for a cellar as soon as possible, for the construction can go on after the house is built. Some arrangement should be made for ventilation, and if the house is damp the earth should be dug away under it, and cement put in if possible. In such a case we must take pains not to have any water run under the house. In fact, every house needs an eaves trough and water pipes to carry off the rain water from the roof, even when there is no cistern, but of course it is poor economy to waste rain water in this way.

Some one then asked Miss Travers' opinion of banking up the earth around the house to keep it warm in winter. Miss Travers thought this should not be done unless there was a way to air the cellar once in a while,

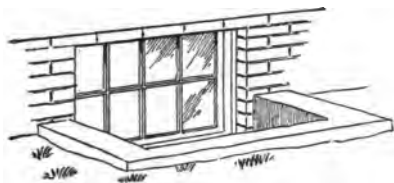


*Courtesy of Whitcomb and Barrows,
The Healthful Farm House.*

FIG. 75. — For ventilating
the vegetable room.

and, if the house and cellar are well built, this is not necessary. If this is done, the earth should be removed just as soon as possible in the spring. She spoke of seeing one old house where the earth had been piled up in this way year after year until it reached above the clapboards, and they had begun to decay. Indeed the sills of the house were rotting, and the house had begun to settle on that side. Cellar damp injures the wood in the house, which of course is less important

than human beings, but is a bad thing any time. Where a cellar has space around the window, as shown in the picture, there must be a hole in the cement outside so that water can run out after a rain.



*Courtesy of Whitcomb and Barrows,
The Healthful House.*

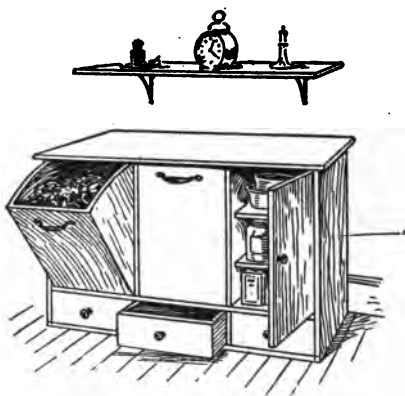
FIG. 76. — This window gives more light and air in the cellar.

How shall we clean the cellar? A cellar made like the Starks' is very easy to keep clean. With screens in the windows very little dust enters. The walls can be wiped down with a cloth tied over the broom, and the floor brushed up in the same way. A whitewashing all over once a year is very necessary. No matter how much we protect the cellar and how clean we keep it, very little air, light, and sunshine enter; and the whitewashing is a safeguard.

Cleaning the kitchen. The kitchen is a room from which all uncleanness must be banished. Everything in

the kitchen, — ceiling, walls, floors, and furnishing, should be washable. (See *Food and Health*, Lessons 16, 21.) It is so easy to track dirt into the kitchen that a mat, and even a shoe scraper, should be placed outside for cleaning off the shoes. Marjorie Allen printed a notice and hung it on the outer screen door of the Ellen H. Richards House, "Please wipe your feet."

Daily cleaning. For a lesson on dish washing, see again *Food and Health*. Be careful always of the sink. It must be clean and dried after every dish washing, and not only the sink itself, but also the pipes below the sink. Put down daily a little soft soap, ammonia, or soda, and use just as much clear water as you can spare. In a long drought, even with running water in the house, we must economize, and for this reason the rain-water system is needed in addition to everything else. Polishing the faucets is always a finishing touch, and a daily rubbing will keep them bright. Be sure that no grease or crumb is left on the kitchen table; and there must be frequent brushings of the floor, especially when wood is the fuel. A



Courtesy of Extension Department,
Ohio State University.

FIG. 77. — A very convenient wood box.

convenient wood box near the stove helps very much in this way, but use the wood box only for wood. Miss James told a story of someone whom she tried to train in keeping the kitchen clean, and she found one day, among the bits of wood in the box, half of a cooky, greasy papers, egg shells, and an old tin can; and this was in spite of the fact that a basket was supplied for waste paper and a garbage can for food scraps, and another receptacle for empty cans. All of these should be part of the furnishing of every kitchen, standing perhaps in the porch or outside. Always rinse out any tin can and dry it off before it is put into its proper place, otherwise you will have a disagreeable odor and a place that flies love.

In brushing up, never raise any dust. If you use a common broom, moisten it. We cannot have dirt flying about the kitchen to fall upon food or cooking utensils.

Cleaning the stove. When Miss James suggested one day to the Mothers' Club the washing off of the stove and the oven, one of the women who knew her well laughed and said very frankly that she never heard of anything so foolish and that it was one new-fangled idea that she should not take up. Miss James replied that she learned this from her own grandmother and not in the department of domestic science at her college; then everybody else laughed. Of course a shiny black stove is most attractive, but have you ever thought that, as the polish burns off the

stove, the particles are really passing off into the room ; and stove blacking is made of mineral substances. Do you also know that if you wash a stove, rub it with oil, and never let it rust, that it really presents a very neat appearance. This of course applies to gas, kerosene, and any other stove. Kerosene will remove grease from a stove and keep the nickel finish bright.

Occasional cleaning in the kitchen. If there are grease spots from the sputtering of something on the stove, this should be wiped off just after it has happened ; but the painted ceiling and wall must be washed off with a piece of outing cloth wrung out from warm water or softened with a small quantity of ammonia or kerosene. There are soft long-handled brushes made for washing off the ceiling and upper parts of the wall, and one of these should be added to the broom closet as soon as possible. The kitchen paint is washed in the same way. It is not necessary to scrub the floor with a hand brush and on one's knees in these days, or to have a dirty mop. One can use a scrubbing brush with a long handle. For wiping up, use in place of a mop a piece of rather heavy soft cloth and push it about with a tool of this description. The handle is long, and on the cross bar is a piece of rubber which holds the cloth down so that you can move it about from place to place. The cloth can be boiled out and dried in the sunshine when the process is over. Once in a while Miss James has the floor of her kitchen in the Ellen H. Richards House oiled. The mats in the kitchen

are taken outdoors in sunny dry weather, and the curtains at the closets are very easy to wash and iron. The cushions in the comfortable chair are removable because they are fastened with the snaps that we use on some of our garments, and they too are sometimes put into the tub. When a kitchen is treated in this fashion, there is almost no dirt in it to be taken out because it has no opportunity to gather.

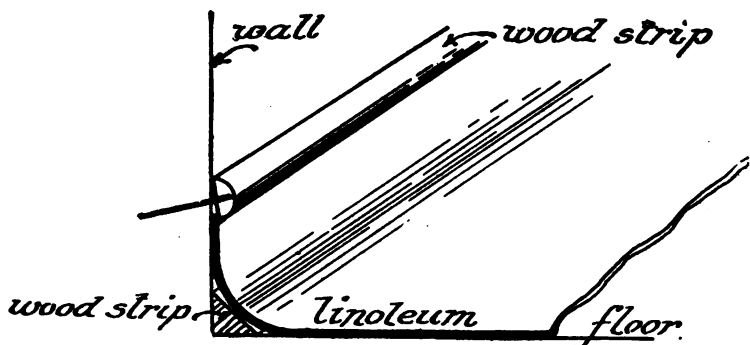
Miss James says that many people prefer the mop to this way of washing up the floor with a separate cloth. You should then have a mop wringer fastened to the side of the pail. Miss James showed the girls how to mop her kitchen floor; and with a wringer they found it was not hard work. Mollie Stark had brushed up the dust and cleared the floor of articles of furniture. She then filled the pail about three fourths full of hot water and added half a cup of soap solution. This was made by shaving off some soap and dissolving it in a little hot water on the stove. It was kept in a jar and small pieces of soap that were left were dropped in it from time to time. Mollie dipped the mop into the pail, held it to drain, and rubbed a few square feet of the floor. Then she rinsed the mop, wrung it, and dried off the wet spot. She began at one corner of the room and worked toward the outer door, rinsed the mop several times, and changed the water. She felt very proud when Miss James praised the color of the mop, when she finally washed and rinsed it in fresh soap-suds with a little washing powder added and then

took it out into the sunshine to stand with its head up. When you learn to use a loose cloth, however, it is much easier than the mopping.

Watch the garbage pail. Miss James has a white enamel pail with cover in the kitchen that holds the food scraps. This is emptied into a larger covered pail outside, and one of the neighbors takes the scraps away for feeding some of his animals. Both of these pails are thoroughly cleansed with washing powder and boiling water every time the food scraps are emptied. Miss James has two because it is easier not to run out a number of times, in the preparing and cleaning up of each meal, to the larger pail outside. When anything sticks to the sides of the garbage pail, it must be scrubbed off. There is no reason for having an odorous and unpleasant pail, and, when the habit is once formed, one does the cleaning without making it a difficult task. You see by degrees we are outgrowing the idea that there needs to be an unclean and unpleasant spot anywhere.

Do you ever empty garbage in the pigpen? Even the pigpen in these days is as clean as the dwelling for any other animal. Pigs like to root in the earth and their snouts are intended for that, but the poor things have no greater liking for filth than have other animals. It is true that pigs are willing to eat a scrappy food mixture and their table manners are not the most fastidious; but, if you have seen a drove of pigs with a run in a wide field, you know that they are just as

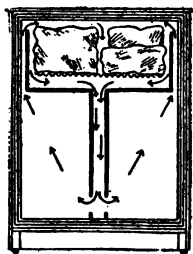
clean as the cows. Do not empty your garbage in a small, damp, filthy pigpen. Why should not a girl



Courtesy of Whitcomb and Barrows, The Healthful Farm House.

FIG. 78. — The way Miss James planned to have the linoleum fit the pantry floor.

be a member of the pig club as well as a boy?¹ (See Fig. 183.)



Courtesy of Mrs. Claudia Murphy.

FIG. 79. — Study this drawing of an ice box. Can you answer the questions?

1. The chilled air in the upper chamber falls. Why? 2. The air below rises to take its place. Why?

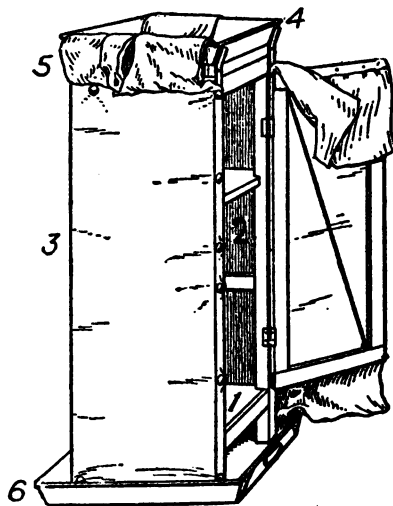
Cleaning the pantry. The method with the pantry is very much like that in the kitchen. Miss James' pantry has linoleum on the floor, which curves up from the floor and is fastened on by a wooden molding. If a crumb or drop of liquid falls on the floor, it is wiped up at once and the linoleum is washed weekly. The ceiling, walls, and shelves are covered with an enamel paint, the spot wiped

¹ Send to the Department of Agriculture in Washington for the pamphlets on raising hogs.

where anything is spilled, and all the shelves washed off weekly.

Cleaning the refrigerator or ice box. This must be inspected daily, and once a week everything should be taken out. This is true of the ice chamber, for seldom may we have perfectly clean ice. Wash this chamber out with ammonia and water, and run a wire down into the overflow pipe, pouring down either strong soap or ammonia water, or a solution of washing powder, or soda. If the food box has enameled walls, nothing more is needed than a washing off in the same way, taking the racks out for a washing in the dishpan at the sink. If the walls are of zinc, you will need to scrape them. Make everything dry before you put the food back. Another point is to notice the coolest spot in your refrigerator and put there the food that spoils most quickly, like meat or milk.

The iceless refrigerator.¹ This is a method of cool-



*From The Weekly News Letter, U. S.
Department of Agriculture.*

FIG. 80. — Iceless refrigerator.

1. Wooden frame with shelves. 2. Wire net.
3. Canton flannel cover. 4. Pan of water. 5. Heavy
wicks to carry drip. 6. Pan to hold drip.

¹ For full description, see copy of The Weekly News Letter, U. S. Dept. of Agriculture, April 26, 1916.

ing by evaporation. Figure 80 shows an iceless cooler, to use when the ice supply is short. The dimensions are $3\frac{1}{2}$ feet in height \times 12 \times 15 inches. If buttons and buttonholes are used on the cotton flannel cover, the cost should not be more than eighty-five cents. The cooler can stand indoors, but a better place is under the shade of a tree in the breeze. It should be cleaned by removing the cover which should be boiled in process of washing. The frame should be scrubbed, thoroughly rinsed, and dried out of doors.

EXERCISES AND PROBLEMS

1. How do you store vegetables for the winter? Do you like Mr. Stark's plans for doing this?
2. How do you keep the cellar dry at your house? Why is dampness dangerous?
3. Describe how you would clean your cellar. Would you do it the same way as the Starks did?
4. Why is sweeping up in the kitchen dangerous when the dust is permitted to fly?
5. How often do you clean the refrigerator at your house? How is this done?

LESSON 5

A FEW SUGGESTIONS FOR LAUNDERING

How can a girl help at home to make laundry work easier?

When the homemaking class of the Ellen H. Richards House had laundered the table linen after one of their entertainments, they discussed with Miss James

the ways in which a girl might relieve her mother from a part of the laundry work.¹

Laundry bags and baskets. Marjorie Allen and the other girls made laundry bags for their own rooms of heavy washable cloth bound with tape, of the shape of the bag in the sketch. These bags were made to hold soiled handkerchiefs, neckwear, and underwear. Mrs. Allen has the laundry work done in the shed outside the house. Two barrels lined with cheesecloth bags are placed there. One is used for bed linen and heavy underwear and towels; the other for table linen. Large covered baskets or hampers can be used. The bags and baskets must be frequently washed.



FIG. 81. — A suitable laundry bag for handkerchiefs, neckwear, or underwear.

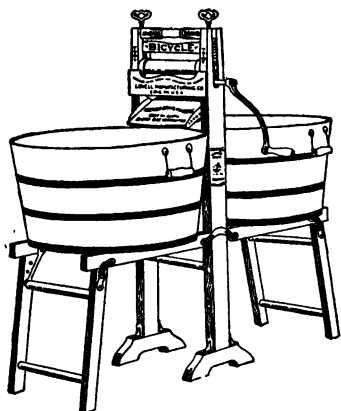
Saving labor. Several of the girls decided to use underwear made of a good quality of cotton crêpe, and to make some of their summer dresses of materials that need no ironing. These articles should be shaken out and stretched before they are entirely dry. Where lace is used for trimming, this can be pulled into shape with the fingers. An embroidered edging should be ironed with the pattern side laid upon a folded Turkish towel.

Several of the Pleasant Valley families use paper napkins and table oilcloth in the summer. This makes the wash very much smaller.

¹ See *Clothing and Health*, Kinne-Cooley, page 188.

Sorting the clothes. Mollie Stark always helps her

mother by taking the articles from the different laundry bags and the hampers, and sorting them in piles. The colored garments are piled together, and the woolen articles are separated from the cotton. The underwear, bed linen, and towels are not washed with the table linen.



Courtesy of Lovell Man. Co., N. Y.

FIG. 82. — Convenient tubs.

Doing up shirt waists. Miss James advised the girls to wash and iron their own shirt

waists and neckwear. If the shirt waist is made of a colored material, a little salt or alum should be used in the water to set the color. A white laundry soap is better to use with colored goods than the yellow soap which contains rosin and probably is stronger with alkali. Colored garments should always be



FIG. 83. — A good clothes sprinkler.

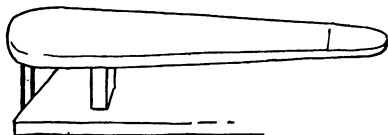


FIG. 84. — A sleeveboard is a great convenience.

fabrics one and one half to three tablespoonfuls of

dried in the shade. For starching a lingerie waist use one teaspoonful of starch to a quart of water, and for medium

starch to one quart of water. Linen waists should not be starched at all. The even sprinkling of a shirt waist is very important, especially if it has been starched. A whisk broom is convenient for this purpose. The waist should be stretched and smoothed, and rolled tight.

Smooth, clean irons and a sleeveboard help very much in ironing the waist. Grandfather Allen, who is a "handy man" in many ways, made a sleeveboard like the one pictured in Figure 84. The ironing board itself should be covered with a clean cloth which may be a piece taken from an old sheet. A cover of heavy unbleached cotton cloth, tied on the board with tapes, is more convenient than a cloth that is sewed on.

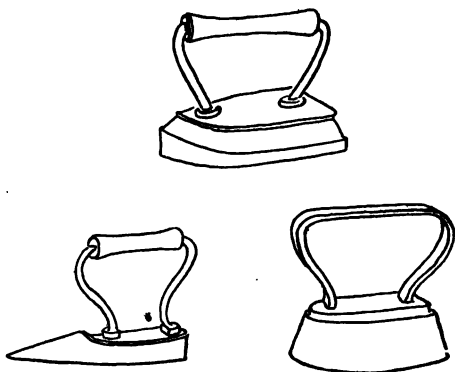


FIG. 85. — Some useful irons.

Have ready for the ironing a stand for the iron, a piece of cloth or paper on which to wipe the iron, and a piece of wax tied in a cloth for rubbing it off. Shake and stretch the waist and lay it straight upon the board. Iron from the right to the left, arranging and holding the waist with the left hand. Iron with the long thread of the cloth. Begin with one side of the

waist and bring it towards you on the board. Iron first the smaller parts that will not wrinkle easily, such



FIG. 86. — A sleeveboard in use. Notice the position of Mrs. Allen's shoulders.

as ruffles, trimming, and sleeves. If the waist is embroidered, iron the embroidered portion right side down on a very soft thick towel. Tucks and folds must be straightened with the fingers, and when you do not get the tucks straight the first time, moisten with a damp cloth and try again. Iron until the waist is dry.

When the ironing is finished, put the waist upon a hanger, and place it where it will not wrinkle. The hanger can be made of a piece of paper rolled firmly and hung by a string in the middle. The picture (Fig. 86) shows how a sleeveboard can be used.

Labor-saving apparatus. Several of the Pleasant Valley girls who are earning a little pin money, enjoy giving some new-fashioned machines to their mothers. There are several kinds of washing machines on the market. One of the best is

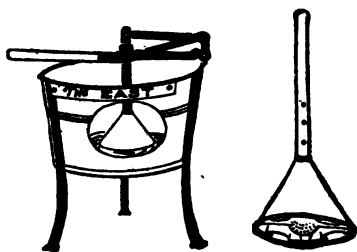


FIG. 87. — A suction washer.

the type which rocks the clothes in soapy water. A simple form is a suction washer which consists of a cone with a long handle which is pushed up and down, or which works by a long handle and is fastened to the tub. A good wringer is a great help, as is also a small mangle.

Other hints for helping.

Both Marjorie and Mollie help with the mending, and they sort and put away the clean garments and other articles. At the times of year when they are not busy in school, they also help with the cooking and take entire charge of the

table setting and dish washing on washing day. Some of the Pleasant Valley girls have planned to launder shirt waists the coming summer. There were many women at the new hotel last year who could find no one to launder their waists well. Some of the Pleasant Valley mothers have their washing day on Tuesday, because this gives them Monday for setting the house in order and for preparing the food for the next day. Mrs. Stark has found that this system of arranging her work saves time as well as energy.



Courtesy of Lovell Man. Co., N. Y.

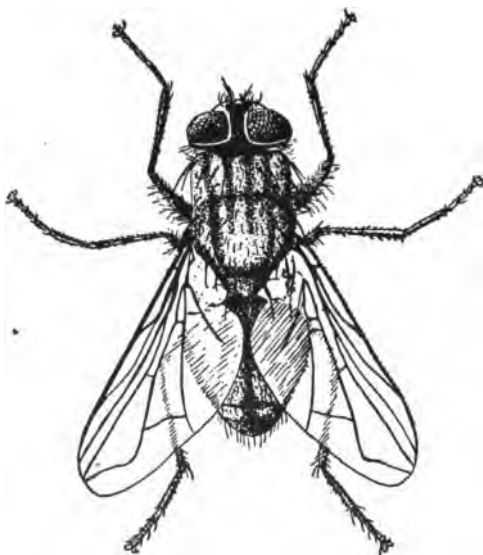
FIG. 88. — A good mangle.

PROBLEMS AND EXERCISES

1. Explain how a suction washer forces water through the clothes.
2. Make a rule for cooking laundry starch.
3. Test the blueing that you use at home by mixing a little with a strong solution of washing soda and heating. (If the mixture turns red, the blueing is made of a salt of iron which is bad for the clothes.)
4. Why do we sometimes need ammonia or borax in the water for washing purposes?

LESSON 6

HOUSEHOLD PESTS



Courtesy of the N. Y. S. College of Agr., at Cornell University.

FIG. 89. — A full-grown fly, much enlarged.

Fighting flies and mosquitoes, rats and mice, is everybody's business. How can boys and girls help at home and elsewhere? The Pleasant Valley girls and boys are particular about this at the Ellen H. Richards House.

Whether we are preparing breakfast or dinner or supper or are clearing away the meal, how the flies do love to share our food with us, if we give them a chance; and how quickly

they find the warmest spot if it is cool or damp outside. We cannot, we must not have flies upon our food, no matter how impossible it may seem to keep them away.

Many years ago verses were written about the fly to persuade children to treat the little creature as a friend. The lines ran something like this:

“Bustling, busy little fly,
Drink with me, and drink as I.”

How could we have explained to the writer that the little poem is quite wrong, and that the fly may be one of the worst possible enemies to the little child, and to grown people too. Our name for this unclean insect is now the “Typhoid Fly”; and our motto must be “Fight the Fly.” The little ones must be taught never to taste food on which a fly has lighted, and never to drink from a cup when a fly has taken a walk upon its edge.

What does the fly like best? Compare the food and habits of a honey-bee or of a clean bumble-bee with a



Courtesy of Louisiana State Board of Health.

FIG. 90.

fly, and the difference proves to us what a dirty creature the latter can be. The bees are flocking to the



U. S. Department of Agriculture.

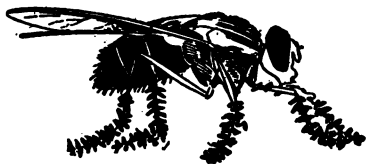
FIG. 91. — A spot that flies love.

clover blossoms, or finding their honey at the base of some deep flower; and the flies are flocking — *where?* To the filthiest spot they can discover, — the manure heap, the garbage can, decayed fruit and vegetables. Here

they swarm, and increase in number, and then they come to our clean kitchens, attracted by the warmth and the smell of food.

Here is a picture (Fig. 92) that shows how the fly can bring to us germs of disease upon legs and body from the filth it loves.

The picture (Fig. 93) shows the journey the fly makes to the baby's mouth.



U. S. Dept. of Agr. Farmers' Bulletin 403.

FIG. 92. — A fly with germs (greatly magnified) on its legs.

Many a baby has lost its

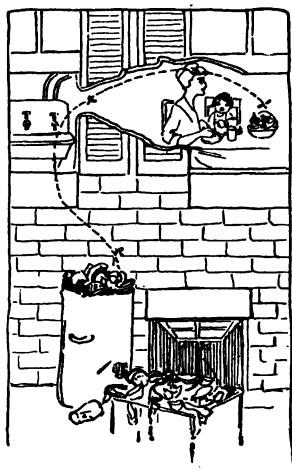
life from sickness brought by a fly, and we cannot count the cases of typhoid developed from filth and disease germs. A fly in the room with a typhoid patient may carry the disease to another home.

The war against flies. Where shall we conduct our fly-fighting, and finally get rid of our enemy altogether? Outside of the house and in, with everybody at work.

Miss James wrote to the fly-fighting committee of the American League for Civic Improvement, Washington, D. C., and they supplied enough pamphlets for everybody in Pleasant Valley and roundabout. The Women's Club decided to have a "Clean Up Day," which would take care of some of the outdoor spots where flies collect. Mrs. Beech, the President of the Club, offered a prize to the girl or boy who would collect the largest number of flies in the season, and some one was appointed to keep the record.

What are some of the simple things to do, as well as the larger ones? There are three parts to our fly-fighting plan:

1. Keeping out the flies.
2. Catching the flies, outdoors and in.



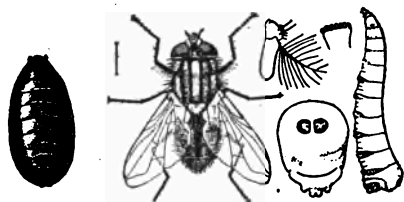
From the "Fly Fighter." Fly Fighting Committee, American Civic Association.

FIG. 93. — The house-fly's air line.

3. Cleaning up dirty places where they increase.

Keeping out the flies. This we should do by having windows and doors screened. These can be bought, made of wire in wooden frames which are adjustable. At the Ellen H. Richards House the girls used mosquito netting, pasted on the outside of the window frames, with one corner fastened with thumbtacks, so that the netting can be loosened when the window sill is brushed off.

Catching the flies. We used to think that driving



U. S. Dept. of Agr. Farmers' Bulletin 679.

FIG. 94. — The common house fly.

out flies was a part of the daily work in summer; but if we drive them out, it is merely to have them come again soon for another call. What we should do is to catch and kill them. Catch them

out of doors, wherever they are hanging about; and, if once they are in the house, kill them there.

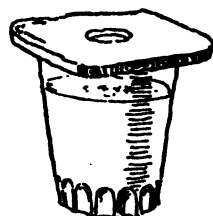
Always watch for the flies that have lived through the winter, and that crawl out when the first touch of warmth suggests spring. Look for them around the barn, the woodshed, the woodpile, the places where fruit and vegetables have been stored, and set your trap at once. If we could kill every spring fly, we would have none later; but it would be hard indeed to find that last fly.

“ Sticky ” fly paper. This is a disagreeable way of

catching flies, but it works. A substance called "Tangle-foot" comes in cans, and this can be spread on a shingle, the shingle set out in the sun, out of the wind, and burned when it becomes covered with flies. A piece of the paper, fastened firmly upon the wall of the shed or outside wall of house, will collect a great many. Or place a sheet inside the house where the sun will strike it, or on a window sill, with the shade almost down. Wherever you lay the sheet, fasten it firmly, for the sticky substance is difficult to clean off. If the paper falls or blows over, use a little kerosene to remove it.

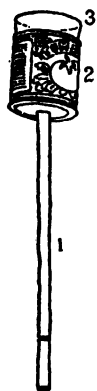
Poisoning the flies. A poisoned paper comes for this purpose to be placed on a saucer of water; but, of course, it must stand out of the reach of little children and animals. It is rather disagreeable, too, to have the dead flies dropping about.

Trapping the flies. Have you ever seen an old fashioned trap made with a tumbler? Grandmother Stark makes them in this way: 1. is a glass tumbler; 2. is the soapy water, which should not reach the top of the glass; 3. is a slice of bread, cut half an inch thick; 4. is a hole in the bread, with molasses spread in it, and *under* the slice of bread. The molasses must not lie on top of the bread. Set this trap in a place where the flies are gathering, either outside or indoors. They are quick to find the



*Courtesy of Laumont
A. Warner.*

FIG. 95. — An old-fashioned fly trap.



*Courtesy of La Mont
A. Warner.*

FIG. 96. — Ready to catch flies on the ceiling.

molasses, and will crawl into the hole ; but, as they are not bright enough to crawl out, they fall into the soapsuds. Here is another way to use a glass of hot soapsuds. Kerosene may be used in place of the suds. If in spite of all our care some flies are left in the kitchen — you know how they collect on the ceiling for a night's rest, — when the light is dull, and the flies are quiet, hold the tumbler underneath a fly, knock the tumbler gently against the ceiling, and you have the fly. If the ceiling is high, have an arrangement like Figure 96: 1 is an old broom handle ; 2 is a tin can tacked on the end of the broom handle ; 3 is the glass of hot soapsuds. If the kitchen is warm, and the flies are buzzing about, cool off the room as much as you can, and then begin action. You will be surprised to find how well this works, and how rapid it is, if the flies are quiet ; a cool evening or early morning are the times when this method is the best.

Wire traps. Traps can be purchased to be baited



Courtesy of Paul Thompson.

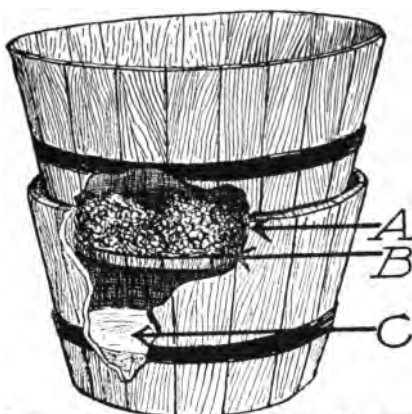
FIG. 97. — The sugar-barrel fly trap and its catch. The black mass in the picture consists of forty-seven pounds of flies ! They were caught.

with food, and set outside the door, in the stable or in the woodhouse; the nearer to the place the flies come from, the better. The flies can be killed after they are trapped, by boiling water, or by standing the trap in the oven.

Figure 97 shows the picture of a large barrel trap to be set near a stable, or any spot where many flies gather. The Boys' Club of Pleasant Valley begged the barrels, set the traps, and caught just as many flies as the picture shows. Will you not make one to stand in the barnyard?

To Make. Knock out both top and bottom of a barrel. Take piece of wire netting, and shape into a cone 18 inches high. The base of the cone must be the same as the bottom of the barrel. Leave one inch space at apex of the cone. Fasten large end of cone securely to bottom of barrel. Over the top of the barrel put a flat piece of netting, so fastened that it can be easily taken out to remove flies. Next raise barrel two inches from ground by means of legs fastened to the barrel. Put some enticing bait in a pie pan and slip under the barrel. The flies come, eat their fill, and, attracted by the light overhead, fly up into the cone and work their way through the small inch space at apex of cone into the barrel. To kill the flies turn the barrel on its head and pour scalding water over them.

A way to avoid having flies, is to make a trap (Fig. 98) for catching the larvæ. Take two half barrels, and in the lower place some water with oil floating on top, or some kerosene. Insert in this the other half with bottom replaced by a wire screen supporting an inch or two of manure. The flies will deposit eggs here;



Courtesy of The Garden Magazine, Doubleday, Page & Co.

FIG. 98. — A trap for killing larvæ of house flies: A, manure; B, wire mesh; C, oil and water.

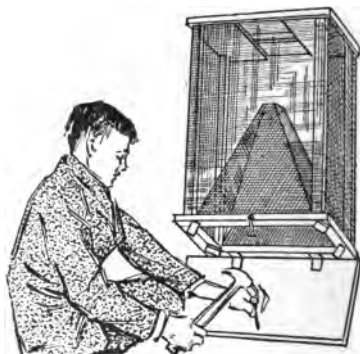
the larvæ will wriggle their way downward and, falling through the wire mesh, are killed in the oil below. This method is practical and simple.

Figure 99 shows John Allen finishing off a large wire trap which he has made at home. A wire fly killer that costs ten cents will last all summer. Or fold a newspaper, and hit the fly

with that. Use this in addition to everything else. If the flies are numerous and you have not succeeded in killing them all, use wire covers over all the plates of food on the table.

Cleaning up. Garbage must always be covered if it stands. The big cleaning up is where Father must help;¹ for we must go to the root of our

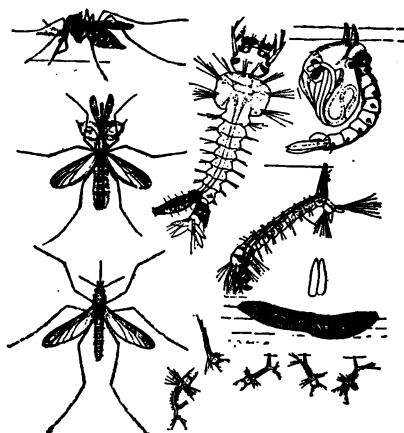
¹ The U. S. Dept. of Agriculture has a pamphlet on the maggot trap. Bulletin No. 200. Maggot Trap in Practical Use; an Experiment in House Fly Control.



Courtesy of Agricultural Extension Department, Harvester Building, Chicago, Ill.

FIG. 99. — John Allen finishing off a wire trap.

troubles,—the stables, the pigpen, and the hen house,—and keep them cleaned out. The Woman's Club of Pleasant Valley wrote to the State College for advice and received letters and pamphlets about taking care of the stables and pens, and the use of cement on the farm. When the Grange met, the Woman's Club asked to have some one speak on this subject too. This set all the farmers thinking; for you see taking proper care of the stables and pens not only decreases the flies, but makes the animals healthy, and keeps milk clean. We have not space in this little book to talk about just what the farmer can do, but something we hope he will want to do, and he can find help. Human lives are at stake, you see.



Courtesy of the N. Y. S. College of Agr. at Cornell Univ.

FIG. 100. — Life story of a mosquito.

And about mosquitoes? You may be sure that the mosquitoes have no warmer welcome in Pleasant Valley or at the Ellen H. Richards House than the flies. Destroying mosquitoes is harder than fighting flies, because it means the draining of swamps, the putting of kerosene on pools that cannot be drained; and everybody has to help. Mosquitoes carry malaria

and fever; but they can be stamped out. One can live now in Havana, Cuba, or at the Isthmus of Panama with little fear of yellow fever, because the mosquitoes are vanquished. More than one brave man has lost his life to bring this about.

What can we do near the house? The young mos-



FIG. 101. — A pleasant farm home with no long grass for mosquitoes.

quito, when first hatched, lives in standing water. Do you know the mosquito wriggler when you see it in a pool? Figure 100 is a picture of the mosquito at different ages. An old tin can, left lying outside and half-filled with rain water, makes a pleasant summer cottage for the young mosquitoes; and if they are undisturbed, enough full-grown mosquitoes may come

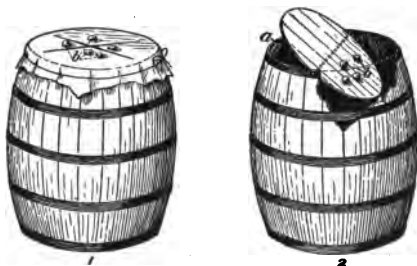
from that one can to spoil your summer evenings, and to poison you with their bites. Look all about the house after a rain, and see that no water remains standing. Cover rain barrels with netting. You need not fear running water, but look for pools, and pour some kerosene on the surface of the water. This smothers the wrigglers.

At one shore resort matters were helped very much by pouring kerosene on the rain-water pools in the rocks above tide level.

Look out for long grass near the house, especially if the ground is inclined to be wet, and keep it cut close. Mosquitoes do not travel far, but sometimes a strong wind will blow a swarm of mosquitoes from a distant swamp to the house. They will not increase unless they can find the standing water. A few years of hard work would rid us of these two small but real enemies.

Another enemy.

When our houses and barns are troubled with rats, we must take great pains to be rid of them. This can be done with patience and perseverance. In December, 1915, there was a paragraph in one of the papers saying that the city of New Orleans is practically rid of this pest. The city was threatened with that terrible disease, the bubonic



U. S. Dept. of Agr. Farmers' Bulletin 369.

FIG. 102. — Barrel traps for rats.

plague, which is carried by rats living in wharves at the water's edge. While there is little danger that we shall have this disease at present, rats are destructive of our property. Figure 102 is a picture of a barrel trap, recommended by the U. S. Department of Agriculture. Do you know that rats are so bright that they suspect a trap, and that you must leave a barrel trap of this kind open for several days, that they may go in and out and find the food that they like? Then set it, and you will probably catch them. If you should use one of the large wire traps that come for this purpose, open the trap that the rats may pass in and out freely, and lay it inside a sack open at both ends. They will become used to it, and then you can close and set the trap.

QUESTIONS AND EXERCISES

1. Why must we be so careful about flies and mosquitoes?
2. Suggest some other ways than those mentioned in the lesson for ridding your house of both.
3. Look about your own house to see if there are places where the mosquito wriggler might flourish.

REVIEW PROBLEMS

- I. Why is cleanliness such an important subject for school study? Write a composition about this.
- II. Send to State College for a lecturer. Hold the lecture at your church or school. Write a list of six topics on cleanliness of the town or home. Send the lists to the lecturer so she may choose one.
- III. What ideas have you gotten from the lesson on dust and dirt which you can help to put in operation at your home?



CHAPTER IV

THE CARE OF THE BABY

WE have learned what it means to care for the home; now we are to study how we can keep the members of the family well and happy in the home. The Pleasant Valley girls have studied this too and have learned that the baby is a very important member of the family.

Miss Travers from State College has been giving a series of talks at the Pleasant Valley School about caring for the baby. All the women of the Mothers' Club attended as well as some of the older school girls. Marjorie Allen is especially interested, as she is anxious to earn some money this summer during school vacation, and thinks she can, as Aunt Sarah who lives at Bear Mountain has a baby, and has told Marjorie she will pay her seven dollars a month if she will come and live with her and care for Baby Julia. What do you think Marjorie Allen should know in order to relieve Aunt Sarah and to render this service carefully

and efficiently? Marjorie is 14, and hopes to save the money earned during summer days. Later she wishes to study trained nursing, after her high school course is finished.

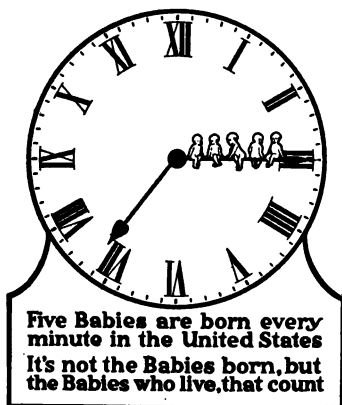
LESSON I

WHAT WE ARE TO STUDY ABOUT NEXT

What are the important things to learn about keeping baby well?

Do you know that five babies are born every minute and that one of these dies during its first year? Little

Guard Your Health



By permission of Woman's Home Companion

FIG. 103. — Can you help save the babies?

babies are very delicate and must have good care if they are to be kept alive. How very sad it would be to have Baby Julia die! Perhaps you have not heard that 300,000 babies under one year of age died last year in the United States. At the United States Children's Bureau in Washington, we are told that one half of these deaths could have been prevented.

Think of saving a baby every two minutes, or 150,000 babies a year! The babies died because their mothers or big sisters did not know how to care for them intelligently so as to keep them well. There are many

things to learn; and, if the mother or big sister knows some of them, it may not be necessary to send for the doctor very often, because baby will be well and happy. Money will be saved for other purposes if not spent for doctor's visits, which are expensive, and home will be a happier place in which to live because baby will be bright and playful instead of dull and crying. It is not natural for baby to be sick. The normal baby is well, and well babies are good. A well baby is much easier to care for than a sick one. Sick babies as a rule do not grow up to be strong men and women. Let us help our country by learning all we can about keeping the babies well so we may have a land full of strong, healthy, good citizens all able to earn and to help. Knowledge about keeping well is a prevention against many ailments, diseases, and accidents. Let us all learn as well as Marjorie Allen. We too may wish to care for babies in our homes or the babies of others.

The important things to know in order to keep baby well are:

1. How to keep baby clean, comfortable, and happy.
2. How to select the best kind of food for baby.
3. How to choose the proper kind of clothing.

EXERCISES AND PROBLEMS

1. Why was Marjorie Allen anxious to learn so many things about Baby Julia?
2. Write to the Children's Bureau, Department of Labor, at Washington, D. C., for pamphlets about caring for the baby.

LESSON 2

HOW SHALL WE KEEP BABY CLEAN?

Have you ever thought how very comfortable you feel when you have had a bath? Baby too is unhappy and cross unless he is kept clean and fresh by a daily bath.

The bath for baby. In some countries babies are tied up for the winter and do not have a chance to kick and enjoy the refreshment of a good bath. Have you ever watched any one bathe the baby? When the weather is warm, perhaps your teacher will ask a neighbor to bring her baby to school when Miss Mary the district nurse is in town. Trained nurses know exactly the right ways to handle the baby. In the picture near you will see some eighth-grade girls at the Pleasant Valley schoolhouse door. The district nurse had been spending the morning at school showing them how to bathe the baby. She is standing next to Mrs. Anthony, who is ready to take Baby Edith home.

The necessary things to have ready for baby's bath. This is what happened when the nurse gave the baby a bath. She had a tin tub, which was oval in shape and painted white. It rested carefully on two square blocks of wood, so nurse did not have to stoop. The tub had been half filled with warm water. Near the tub stood two pitchers, one containing cold and the other hot water. This was in case nurse needed to cool the bath or to make it warmer. Nurse said when baby is only a few weeks old the temperature should be

about 99° F., or blood heat, but the temperature can be lowered gradually to 90° F. by the time baby is a year old. There are bath thermometers which cost about twenty cents, for testing, but one learns to know



Courtesy of Miss Van Duzer, Cleveland, Ohio.

FIG. 104. — These girls have been learning how to bathe the baby.

the temperature by testing with one's elbow. It is very easy to burn baby, so one should be very sure. There were two chairs, a low one for nurse to sit on and another near at hand with the necessary things for her use. They were :

Two wash cloths.

Two soft towels.

A cake of pure castile soap. Scented or strong soaps would injure baby's skin.

A bottle containing boracic acid water for washing baby's eyes. This is made by dissolving 1 teaspoonful of boracic acid in a glass

of boiling water. Boracic acid is a white powder. You can buy it by the pound at the drug store, and it costs less than when bought in small quantities. The solution can be kept tightly corked in a clean bottle.

Some absorbent cotton for washing baby's eyes.

Two pieces of absorbent cotton rolled into a point like a pencil, for cleaning the nose and ears.

A bottle of vaseline.

A box of talcum powder. This costs less if bought by the pound.

How nurse put baby into the bath. The nurse removed some of baby's clothes and, before undressing her entirely, washed her face and head with the soft



By permission of Woman's Home Companion.

FIG. 105. — See how carefully nurse supports baby.

wash cloth, and dried them with the face towel. Then she washed out the nose and ears very gently with the little wads of cotton. The room was warm, and nurse was sure before she started that there was no cold

air coming in, for baby must not be chilled. Nurse put soap on the second wash cloth and rubbed it all over baby; then she put her into the tub very gently and carefully. She splashed and liked it, and nurse washed her with this second wash cloth — the other was for face only. She washed all over the little body, holding her carefully as in the picture. Five minutes is

enough when baby is a year old, and less time when younger. Nurse rinsed off all the soap and then lifted her carefully on her soft crash apron and dried her quickly with the dry towel. Then she put a little powder in all her fat creases, under the chin, arms, and legs, so that there was no danger of uncomfortable chafing and irritation. Then baby's clothes were put on — what they were we shall learn another day. (See page 199.)

The soft absorbent cotton was then wet with the boracic acid water, and each eye was washed with a different piece of cotton which was afterwards thrown away. Baby was given a little cool *boiled* water from a spoon, but her mouth was not washed out. If she is well, this is not

necessary until she has teeth. Then baby's hair was brushed with a soft brush, and with a blanket about her she was ready for her breakfast and a good sleep out of doors. She is very happy after such good care.

How often to bathe baby. The best time to bathe the baby is in the morning between two feedings;



FIG. 106. — Aunt Elizabeth is preparing to show Marjorie how to bathe baby Julia.

never less than one hour after a feeding. A well baby should be bathed *every* day after it is a week old. Sometimes baby frets because his skin is clogged and he needs a good bath. If baby is not strong, the doctor should decide how often he should be given a tub bath, but he should be wiped off with warm water every day. In very warm weather it is sometimes wise to give baby one or two sponge baths during the day to cool the little body.

I wonder if Marjorie Allen could remember so many things? She could, I know. After Aunt Elizabeth had helped her once or twice perhaps then she could do it all alone.

EXERCISES AND PROBLEMS

Have you watched while baby has a bath? Notice when and how he is bathed. Is it the same way that Miss Mary bathed Baby Edith? Talk it over with your teacher.

LESSON 3

SOME THINGS TO MAKE BABY GROW

Have you ever wondered why baby sleeps so much? If the baby is to grow and be well and strong, sleep is very necessary.

Sleep is very important, for it makes baby grow. During the first month, baby should sleep about twenty-two hours out of the twenty-four, and even at six months of age as much as sixteen hours are required. The

other hours of the day are for bathing and feeding. If baby's sleep is interfered with, his nervous system may not develop normally, he will be restless and fretful, and he will cry.

The night clothing for baby. During the first year baby should be undressed and made ready for the night by six o'clock.

He should be trained to sleep, during the first three months, from 6 P.M. until 6 or 7 in the morning, with a feeding at 9 or 10 o'clock at night, and another at midnight if he awakens. The clothing worn during the day should be hung up to air and his night band, shirt,



By permission of Woman's Home Companion.

FIG. 108. — A comfortable "nightie" for baby Julia.



By permission of Woman's Home Companion.

FIG. 107. — Baby is ready to sleep out doors. How warm she looks!

diapers, and nightdress put on. A warm "nightie" is worn in winter, but a lighter nightslip is better in summer. In winter the gown should be made of flannel, cashmere, or specially prepared outing flannel. It is possible to buy a night dress of stockinet which is like our stockings—knitted material. These are warm and comfortable and are often drawn up at the feet to keep baby warm. Outing



FIG. 109. — The clothes basket is ready for baby Julia on the side porch.

flannel is dangerous for baby's garments. It burns easily unless treated with a chemical. To prevent this, see page 9 in *Clothing and Health*.

Baby should sleep alone. At first a clothes basket can be made

comfortable with pads and blankets, but later a cot or bed is necessary if baby is to sleep well (Figs. 109, 110). A pillow is not necessary and baby rests better without it. Do not rock the baby. Place him in his bed by himself in a quiet room. The kitchen is not a good place for baby to sleep. Be sure the room has been well ventilated even in cold weather, and always keep a window open top and bottom while he is asleep (Fig. 111). If it is possible for him to sleep out of doors, it is better. During the first year baby should



By permission of the Whitcomb Metallic Bed Company.

FIG. 110. — A suitable crib for baby. The side can be lowered.

have a nap morning and afternoon. Later on one nap during the day may be sufficient.

If possible baby's room should be screened. Flies and mosquitoes carry germs and disease. If you cannot screen the room, have a netting over the bed.

Baby needs plenty of fresh air and sunshine in order to grow strong. If he cannot sleep out of doors all the time, keep him out as much as possible. Even in cold weather baby enjoys being outdoors if well protected.

If baby is restless, it may be due to the fact that he is uncomfortable. Try to find the cause—his clothing may be wet, or he may need to be turned in bed. We do not care to lie on our backs all the time, neither does baby. He may be thirsty or in pain. Do not give him a pacifier to comfort him. They are filthy and dangerous. They carry germs to the stomach and intestines, and cause mouth breathing and adenoids and upset digestion. Ask your teacher to explain how.

Baby may cry for water. He should have it frequently but between feedings. He is not always hungry when he cries but may be very thirsty. Some-



By permission of Woman's Home Companion.

FIG. 111. — Notice the curtains are drawn back and the window open both at the top and bottom for circulation of air.

times he cries because he has had too much food. It is wrong to feed the baby irregularly. In order to stop his crying, give water instead. The water should not be too cool, and should be warm when baby is only a few months old. Test for warmth on the wrist. Always boil the water baby is to drink, and keep it covered until ready for use. Water is very soothing and helps to prevent constipation. Many grown people do not drink enough water, or think about it being a necessity.

Some suggestions for baby's comfort. Baby cries sometimes in summer because he is hot. He feels the heat more than grown people. Keep baby cool, and remove some of his clothing, but do not let him get chilled. In winter keep him warm.

Baby is uncomfortable and cries if his diaper is soiled. Never use a wet or soiled diaper a second time before it is washed. It will cause chafing.

Sometimes baby likes to cry. The cause may be temper. Do not pick the baby up from the bed. A good cry develops lung capacity and stimulates circulation. A moderate amount of crying is not harmful. This is part of baby's exercise and helps to keep him well.

Babies must be trained to lie in bed at the right times. It is wise to begin this kind of education the very first week of baby's life. Habits are quickly formed. Baby will enjoy being rocked or having someone walk the floor with him. This is unwise.

Baby will be very uncomfortable and unhappy unless his bowels move regularly every day. Constipation is the result of bad habits of not having regular times each day, and leads to all kinds of trouble in later life. Convulsions are sometimes due to constipation. Young babies should have two or three stools every twenty-four hours. If baby is constipated or if the movements are loose, a physician should be consulted until the mother has learned what to give the baby to correct the digestive disturbance, for such troubles are due to wrong feeding and faulty digestion as well as bad habits.

Exercise for baby. How would you feel if you could not move about or exercise? Baby needs a chance, too. The first few weeks of his life crying is his exercise. When about three months old baby should be given the chance each day to kick and roll. Place him on a bed with nothing on but his little shirt. The room should be warm, about 70° F. There should be no drafts. Rub his little back and limbs at this time. The rubbing helps to make them strong. Watch him stretch and coo.

Baby is not a plaything. From four to nine months baby will help with his exercise. He will hold up his head and look about. He will begin to creep at about ten months, and to sit alone. At about one year he will begin to walk. If mother is busy, a pen like the one in the picture can be put on the grass on a shawl in summer, or on the floor indoors at other times. As

he grows he will need play. Thought should be given to selecting the best toys and the right games. Baby will put everything into his mouth. Toys made of wool or hair are bad. Those which can be washed are best. As he grows older, toys can be chosen which will have educational value as well.



FIG. 112. — Baby is amusing himself while mother is busy.

Baby is not a plaything to amuse the family. At six months of age is time enough to begin to play a little. Playing before that age causes him to sleep badly, to have indigestion, and to be nervous and irritable.


Kissing on the mouth is bad for baby. Disease is often communicated in this way. People with colds should not go near or touch baby.

Sucking his fingers should be prevented. It spoils

the shape of his fingers and mouth. A pacifier is equally bad and causes many troubles.

Baby should always have his own wash cloths, towels, and handkerchiefs. It is not safe to use a handkerchief which others have used.

Plan a clock for baby. He will grow and have better habits if he has systematic care. This might be his clock, or schedule, for the first six months, after he is a few days old. *It is very important* to feed baby by

the , to have a definite time. The intervals may vary between feedings, more or less time according to baby's health. A physician should recommend the schedule, for what the intervals are to be will depend on circumstances.

- 6 A.M. First feeding.
Baby sleeps or kicks in bed.
- 8.30 A.M. Bath.
- 9 A.M. Baby has second feeding, and sleeps until noon, outdoors if possible.
- 12 A.M. Baby's noonday meal. Third feeding.
- 1-3 P.M. Outdoors; nap or airing.
- 3 P.M. Baby nurses. Fourth feeding.
- 3-5 P.M. Baby is awake; when he is six months old, this can be play time.
- 5 P.M. Preparation for bed.
- 6 P.M. Supper. Fifth feeding.

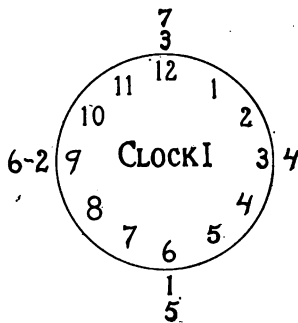


FIG. 113. — Clock I shows that baby is fed every three hours, and has seven feedings during the day. This is for the first three months of his life.

9 P.M. Sixth feeding.

12 P.M. Seventh feeding. After three months of age this feeding can be omitted. He should sleep until 6 A.M. if comfortable and well.

These clocks show some suggested schedules for feeding baby. The small numbers outside the rim of the clock show the number of feedings, and the hours at which they should be given.

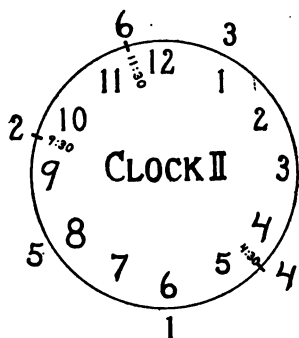


FIG. 114. — Clock II shows that baby should be fed every $3\frac{1}{2}$ hours from three to six months old, but only six feedings each day.

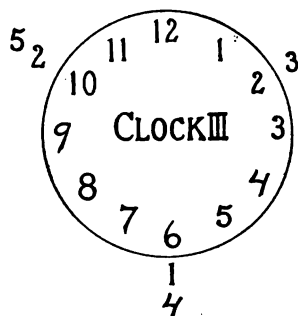


FIG. 115. — Clock III. Baby has only five feedings each day from his seventh month until he is 1 year old. How often does the clock say?

EXERCISES AND PROBLEMS

1. See if you can arrange a sheltered place where your baby brother or sister may sleep out of doors.
2. Make a list of the good habits baby should begin to form if he is to be well and strong.
3. Plan a clock which will show how very systematically he should live. *It is very important*, not only to plan but to be sure the baby is fed and bathed and cared for on time.

LESSON 4

THE FOOD FOR BABY IS THE MOST IMPORTANT THING IN HELP-
ING TO KEEP HIM WELL

Do you know what to feed baby? Some one has said that "The feeding of children is the foundation of citizenship." Do you know what is meant by a good foundation, and by good citizenship?

The right food for baby will be the best foundation. It is very important to have a good foundation for anything which is being built. The right food for babies will be the best foundation we can give them for health. Pigs and cows are often fed more wisely than most little children. Farmers know in raising their stock that care and right feeding of their animals is necessary in order to raise them. When cattle and horses are well fed and cared for, they look better, do better work, and are more valuable to the farmer. This is true of grown people and little children too. Isn't this a good reason why we should all study how to care for the little babies too?

We are told that out of every one hundred babies fed from bottles, on prepared foods, thirty die during the first year. This is due to lack of cleanliness of bottles and foods, or to use of food not properly prepared, or not adapted to the babies' needs. We are also told that only seven out of one hundred babies fed from the mothers' breasts die during the first year. *So you see mother's milk is the best food* and agrees with baby.

It is nature's way, and *all babies* should be so fed if possible. Mother's milk contains every element which the baby's body needs for growth. It is free from germs and is clean. A nursing baby should have a healthy mother if he is to grow strong.

Mothers must keep well too. Here are some of the things they should do in order to help baby :

1. Eat regularly, good nourishing food, and plenty of it including a good deal of milk. "Milk is the best food to make milk."
2. Sleep at least eight hours at night.
3. Take a nap or lie down every afternoon for half an hour. It is endangering baby's life if mother gets too tired. Few mothers realize how very important this is. Rest is absolutely essential if baby is to be kept well.
4. Drink plenty of water ; tea and coffee are too stimulating.
5. Nurse the baby at regular times. Mother's nipples should be washed with boracic acid water each time before baby touches them.
6. Exercise every day in the fresh air if possible.
7. Be happy ; do not fret or get tired or out of temper.
8. Bathe every day.

If the mother will obey all these rules, baby ought to be happy and digest his food.

Baby should be nursed regularly. If he is fed from the bottle on prepared milk, his schedule should also be planned regularly. During the first months he will have to be wakened for his feeding, but later he learns to waken regularly if kept on a regular schedule. Ten to twenty minutes is about the right length of time for nursing. Baby should be held over the shoulder

for a few minutes and patted very gently on the back after the feeding. This brings up the gas, or the air swallowed during feeding. Then he should be laid on his side in bed to rest quietly. Do you begin to understand how important this subject of food is, if we are to have well, healthy babies in our homes?

Sometimes it happens that mothers do not have enough milk for baby and must give him some substitute from a bottle to make sufficient quantity during twenty-four hours; or again, as sometimes happens, they may have no milk at all. Then artificial feeding is necessary. There is no perfect substitute for mother's milk. The best is cow's milk which has been changed or modified to suit the baby's stomach as well as possible. If the mother cannot nurse her baby, a physician should tell her what substitute to use. All children cannot be fed alike. It is not safe to use the same substitute that some neighbor who lives down the road uses for her baby. If a substitute must be used, these are the things one should remember at any time in feeding baby, even after baby has been weaned:

1. How to select pure milk, which is better than any other food, and to keep it clean.
2. How to keep the feeding bottles and nipples clean.
3. How to prepare the cow's milk so the baby can digest it.

EXERCISES AND PROBLEMS

1. What kind of food does your baby brother eat? How old is he? What is absolutely the very best food for baby? What next best?

LESSON 5

PURE MILK FOR BABY

Do you know where the milk comes from which your baby drinks? Is it pure? How shall it be kept so?

Perhaps you live near the farm where the cows furnishing milk for your baby are kept. Perhaps the cows on your farm supply the milk; or you may live in



FIG. 116. — The cows which furnish the milk.

a town some distance from the farm and buy the milk from a farmer or a dairy. If you wish to choose good milk for baby, you should know about these things:

1. Are the cows healthy?
2. Is the barn clean?
3. Are the milkers clean? Do they wash and dry their hands before milking?
4. Is the milk pail clean which holds the milk?

If you live in town, it is not always easy to know these things; but on your own farm you can be sure. If you do not have cows, try to buy the milk from someone who is careful about the above things. It is worth while knowing where the milk comes from. It is not safe to buy milk from dirty dairies. In large cities inspectors are paid to go to the farms near the cities in order to see if conditions are safe, and if the milk



Courtesy of the Walker-Gordon Laboratory.

FIG. 117. — This picture shows a clean cow stable.

sent to the large cities is handled in a clean, safe way. If one lives in a large city and wishes to be very sure milk is pure and has had particular inspection, one can buy certified milk. It costs about 15 cents a quart in New York.

After milking, the milk should be strained through several thicknesses of cheesecloth and put into clean cans, or some of it into bottles or jars for baby. These cans should be cooled at once by putting them

into ice water or in the spring. Do you know why it is necessary to cool the milk quickly as it comes from the cow? The cooling helps to preserve it; and, as you have learned, the bacteria will not have so good a chance to grow in the cooled milk. When allowed



Courtesy of Walker-Gordon Laboratory Co.

FIG. 118. — Notice the clean milkers.

to cool slowly in a cold room, there is more danger of the germs getting a start.

The care of milk for baby is very important. Baby's milk can be put in a clean jar or bottle to be placed in the ice box, refrigerator, or cool cellar, until time to prepare it. Milk must always be covered. Never

let it stand five minutes without a cover. When the family buys bottled milk, the bottle which is to be used for the baby should be kept separate from the others and always in the coldest part of the ice box.

Be sure the ice box is clean. It should be washed thoroughly with hot water and soda at least twice a week, and thoroughly aired. Why is this necessary? (See page 141.)

Milk used for baby should not be more than twenty-four hours old in summer or forty-eight hours in winter. If you are not sure the milk is pure, it can be sterilized or pasteurized before using it in the preparation of baby's food. Perhaps you can learn to do this in school? Put the milk to be pasteurized into a clean double boiler or agate saucepan. Heat it to a temperature of 150° F. and keep it at this temperature for twenty minutes. This temperature kills the bacteria of diseases. It does not affect the taste of the milk. In large cities one can nearly always buy pasteurized milk. In many cities all milk except that which is "certified" must be pasteurized before it is offered for sale. The best way to pasteurize the milk for baby is to fill all the bottles for the day with his



By permission of Woman's Home Companion.

FIG. 119. — Count how many times the words "clean" and "cool" are used. Why?

modified milk and place them in a wire rack. (In another lesson we shall learn what modified milk means.) Put this rack in a saucepan of cold water and put it on the stove until the water boils. When it boils remove from the stove and allow the bottles to stand in the hot water for twenty minutes. The bottles should have stoppers made of absorbent cotton, or porcelain stoppers which can be boiled. (See page 189.)

If milk is to be sterilized, it is necessary to heat it to the boiling point, 212° F., and to keep it there twenty minutes. How does this differ from pasteurized milk? All active bacteria of disease are destroyed, but the boiled milk is not quite so good a food as the pasteurized or pure raw milk. The taste of sterilized milk is not quite so pleasant. Taste it and see. It may cause constipation, too, if given for a long period.

The Care of the Bottles is Important!

It is very important to keep baby's bottles clean. Much disease is caused because of dirty bottles and nipples. It is very important to have as many bottles as there are feedings in twenty-four hours, and to have a time each morning after baby is asleep when bottles can be washed and sterilized, and the milk prepared for feedings. Immediately after each feeding, rinse the empty bottle with cold water. Fill with borax water to stand until next morning, when you sterilize all at once. Buy bottles which are round, smooth,

plain, and easily cleansed. (See Fig. 120.) Bottles with tubes are very bad, for they provide a good place for germs to grow. Buy plain nipples. After use turn them inside out, scrub thoroughly with soapsuds, and rinse. Let them stand covered in a cup of water in which a small amount of boracic acid has been dissolved. Make a fresh solution every other day. (See Fig. 122.) The hole in the nipple should not be too large nor too small. One should be able to barely see through it.

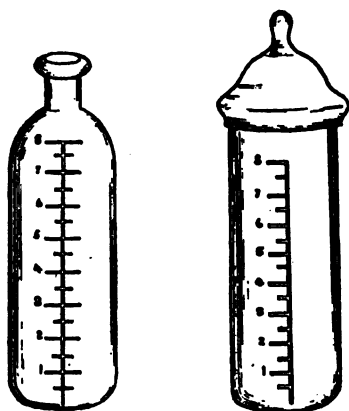


FIG. 120. — These bottles are round and smooth and easily cleansed.

If too large, the milk will come too quickly. New nipples should be boiled for five minutes.

When ready to wash the bottles which have collected during twenty-four hours, empty the borax water. Wash the bottles with a brush in hot soapsuds. Rinse in hot water and boil for twenty minutes.

EXERCISES AND PROBLEMS

1. If you can, visit the cow furnishing your baby's milk. Is the stable clean? Is baby's milk handled as you have learned in this chapter that it should be?
2. Visit the dairy if there is one near. Perhaps your teacher will take the class.

3. Try at home if you cannot at school, to
 - a. Pasteurize some milk.
 - b. Sterilize some milk.

Notice the difference in taste, if any.

4. Try to wash baby sister's or brother's bottles at home in the way you have learned at school.
5. How many uses can you give for boracic acid?

LESSON 6

SOME THINGS TO BE CAREFUL ABOUT WHILE PREPARING BABY'S MILK

When it is impossible for a mother to nurse a baby it is necessary to give the baby a substitute. (See Lesson 5.)

Few babies can take cow's milk just as it is, because it is different from mother's milk, and causes digestive troubles. Baby would be sick, cross, and restless, and would not grow, if he took the milk as it is. Consequently, cow's milk must be changed so that baby can digest it. This is called modifying the milk. Cow's milk is richer in protein than mother's milk; so it is necessary to dilute it. As diluted cow's milk will not give baby enough food, it is necessary to add sugar, called milk sugar, to make it more nutritious. You have already learned the composition of cow's milk. Cow's milk contains about the same amount of fat as human milk; but when we dilute it, it has less fat than human milk. Sometimes adding sugar makes it rich enough; at other times the baby needs more fat.

Richer milk must then be used for dilution ; that is, milk with a higher per cent of fat. Remember, you are trying to change cow's milk so that baby can digest it, and at the same time trying to give him enough food to supply fuel, as well as building material. He is growing as well as exercising, and so he needs both fuel and building material.

Consult the doctor about the best food for baby. A doctor should be consulted and his advice followed. He will tell just how to change the cow's milk. Each baby is an individual and will need his own formula ; that is, the prescription or directions for making the modified milk.

Some famous physicians and others who are interested in the welfare of little babies have worked out formulas for preparing babies' food, showing how much of each ingredient to put in for different ages, in order to modify the cow's milk. A physician should be asked about this for your baby, as the amounts must sometimes vary. Not all babies are normal ; and the formulas given in the next lesson for baby's calendar are for a normal well baby.

There are laboratories in some cities which make a business of preparing modified milk for babies according to doctors' formulas. Great care is taken of the cows at these laboratory farms so as to keep them well, and great attention is given to the cleanliness of all utensils used in the preparation of the milk. This is very important, because dirt is very dangerous. It causes

dysentery, diarrhea, and other troubles which sometimes mean loss of the baby's life.

In preparing baby's milk, be sure that all your utensils are clean and not used for anything but the preparation of baby's food. First of all, clean hands and



Courtesy of the Walker-Gordon Laboratory.

FIG. 121. — This shows a laboratory where milk for babies is being prepared.

table, clean bottles, nipples, and utensils should be ready to begin with. Look at the picture (Fig. 122). It tells some of the things one needs. The measuring glass is quite necessary. It is marked showing the number of ounces. How many ounces are there in a pint?

If you have milk from your own farm, you should be sure it is pure before you begin to modify it for baby's use. (See last lesson.) Take good, rich, whole milk which has from four to five per cent of fat.

Be sure it is well mixed. If you have a cool place to keep the milk, you can prepare the feedings in the morning, from the milk of the night before, and modify enough to last for the six or seven feedings during the day. We shall study in our next lesson about how to modify the cow's milk and what baby's calendar of food should be, during his first year.



Courtesy of Woman's Home Companion.

FIG. 122. — Notice the utensils necessary for preparing baby's milk.

EXERCISES AND PROBLEMS

1. What is meant by modifying cow's milk for baby? What are the directions for modifying it called?
2. How does cow's milk differ from mother's milk? Why must cow's milk be changed?
3. What are some of the dangers from dirty milk? From dirty utensils?

LESSON 7

HOW TO MODIFY BABY'S MILK

See if you can follow carefully the directions given for modifying baby's milk.

Put into a pitcher the necessary ounces of whole, well-mixed milk, according to the formula to be used.

If cream has risen upon the milk, mix it by pouring into a clean recently scalded pitcher and back into the milk bottle two or three times. Add the milk sugar, which has been dissolved in boiling water. Then add the quantity of boiled water required. Mix well and divide quantity in bottles according to the number

of feedings and ounces required for each day.

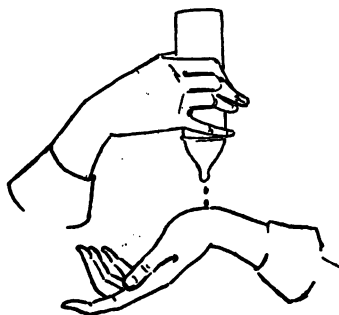


FIG. 123.—The right way to test baby's milk.

Place a cotton stopper in each bottle and put in a cool place. See picture of bottles with stoppers (Fig. 122). The stand holding them is convenient. The bottles must not stand uncovered. At feeding time, place the bottle in hot water to heat.

Before giving to baby, test heat on the inside of the wrist so as not to burn baby's mouth. It is absolutely necessary to have as many bottles as there are feedings and to fill all at once at the daily preparation time. Can you think why this is essential? What happens to milk when it stands?

The American Medical Association has published a pamphlet called "Save the Babies." The famous physicians who have written it have saved many babies. They tell how to plan for feeding the baby during the first year when whole milk from the cow is

used. Cow's milk is the very best food when mother's milk cannot be obtained, but it must be diluted according to baby's age and digestion. Patented foods should not be used, unless recommended by a physician.

Baby's Calendar of Food.¹

Scheme for whole milk feeding during the first year.

First day of his life: Only water. 1 ounce every 4 hours.

Second, 3d, and 4th days: 3 ounces of milk, 7 ounces of water, 2 level teaspoonfuls of milk sugar; divide into 7 feedings.

Fifth to 7th days: 4 ounces of milk, 8 ounces of water, 3 teaspoonfuls of milk sugar; divide into 7 feedings.

Eighth day to end of 3d month: Begin with 5 ounces of milk, 10 ounces of water, and $1\frac{1}{2}$ tablespoonfuls of milk sugar; increase the milk by $\frac{1}{2}$ ounce every four days, and the water by $\frac{1}{2}$ ounce every eight days; the milk sugar by $\frac{1}{2}$ tablespoonful every 2 weeks. Thus, on the 16th day take 6 ounces of milk, $10\frac{1}{2}$ ounces of water, 2 tablespoonfuls of milk sugar; divide into 7 feedings; on the 20th day increase the milk to $6\frac{1}{2}$ ounces, using $10\frac{1}{2}$ ounces of water and 2 tablespoonfuls of milk sugar as before.

Beginning of the 4th month to end 6th month: At the end of the third month the baby will be getting approximately 16 ounces of milk, 16 ounces of water, and $4\frac{1}{2}$ tablespoonfuls of milk sugar, divided into 6 feedings. Now increase the milk by $\frac{1}{2}$ ounce every 6 days, reduce the water by $\frac{1}{2}$ ounce every 2 weeks, using $4\frac{1}{2}$ tablespoonfuls of milk sugar per day. If the food does not digest readily, barley water may be used instead of the plain water. It is made by cooking $\frac{1}{2}$ tablespoonful of barley flour in the water for 20 minutes and cooling before adding to the milk.

¹ Adapted from Holt & Shaw's *Save the Babies*, by Mrs. Mary Swartz Rose, Teachers College, Columbia University.

Beginning of the 7th month to end of 9th month: At the end of the 6th month the baby will be receiving about 24 ounces of milk, 12 ounces of water, and $4\frac{1}{2}$ tablespoonfuls of milk sugar daily, divided into 5 feedings. Now increase the milk by $\frac{1}{2}$ ounce every week, reduce the water by $\frac{1}{2}$ ounce every 2 weeks, and reduce the milk sugar to 3 tablespoonfuls per day. Midway between two of the morning feedings, give from one to two tablespoonfuls of strained orange juice. This helps to keep the bowels in good condition and serves as a safeguard against scurvy when pasteurized milk is fed exclusively. If barley flour has not been used earlier, it may be advantageously introduced during this period, cooking $1\frac{1}{2}$ tablespoonfuls of the flour with the water for the day and gradually increasing to 3 tablespoonfuls.

Beginning 10th month to end of 12th month: At the end of the 9th month the child will be receiving about 30 ounces of milk, 8 ounces of water cooked with 3 tablespoonfuls of barley flour, 3 tablespoonfuls of milk sugar, given in 5 feedings, and from 1 to 2 tablespoonfuls of orange juice between two morning meals. Now increase the milk 1 ounce per month, decrease the milk sugar 1 tablespoonful per month, and add barley gruel made with 3 tablespoonfuls of barley flour cooked in 8 ounces of water. Continue the use of orange juice, which may be increased to 3 tablespoonfuls if the bowels are not loose. After one feeding the soft yolk of an egg may be fed warm, with a spoon, or a small piece of stale bread crust be given to chew. No other foods should be given during the first year.

From this scheme you can see how very careful one should be to increase baby's food gradually, so he will have all the necessary food for body building and exercise.

Very often babies are given too much food. A baby's stomach is very tiny at birth, and cannot hold

much. Overfeeding is the cause of many digestive troubles. (See Fig. 124.) When the feedings are irregular, baby's stomach cannot take care of so much. Do you see now why it is necessary to feed him on schedule time?

One can tell if the milk is agreeing with baby. He will sleep quietly and his disposition will be good. There will be no vomiting and he will have a good appetite. The stools will be normal, yellow in color, soft and smooth with no lumps. If baby is gaining from 4 to 8 ounces a week, the food is agreeing with him. It is *very important to weigh* him regularly. *If he does not gain, consult a physician at once.*

As the food is changed from time to time and strengthened, baby may be upset by it at first. If baby does not become

accustomed to the new food and is not able to digest it in a few days, it is wise to give baby the weaker food he has been taking and to try again, making the increase more gradually. If he is very sick, it may be necessary to stop all food and give only boiled water until the doctor comes. If he is only slightly sick, it may be necessary to reduce his food. This can be

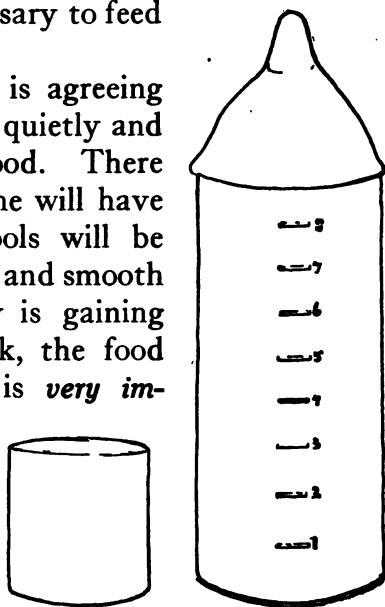


FIG. 124. — An eight-ounce bottle and a cup showing how much baby's stomach will hold at about one month of age.

done by shaking the bottle of prepared, modified milk, pouring off one third or one half, and filling with boiled water. This can be given until he feels better.

You will have noticed that baby's milk increases in quantity and proportion as he grows older, and that the food is changed gradually. By the time he is a year or 14 months old, whole cow's milk can be given. Let him take it from a cup which he should learn to hold.

When the baby is about 9 months to 1 year old, it is wise to begin to wean him from the bottle and to give him the bottle only at the night feeding. His modified milk taken from a cup will be his principal food, but baby should begin to eat a few other things. We shall learn what and how to prepare some of them. Be very sure in feeding baby from a cup that he gets the milk; often it is spilled on the bib or floor. The weaning of baby from mother's milk should be done after advice from the doctor. It is usually done by beginning when the baby is 9 or 10 months old, to substitute some modified cow's milk for a breast feeding. This is done only once a day at first, but is gradually increased until baby is used to going without the breast feeding. It is unwise to wean the baby during the summer months. Many deaths are caused because mothers do not understand when and how to wean the baby.

Baby begins anywhere from 6 to 10 months, sometimes before that, to get his teeth. If he is well and

properly fed, the teeth will be white and strong. The front teeth come first. Great care should be taken of baby's teeth as he grows, for decayed teeth cause sickness.

EXERCISES AND PROBLEMS

1. With teacher's help see if you can prepare the feedings for one day for a baby 7 days old, who must take modified cow's milk. Use the formula given.
2. How can one tell if baby's food is agreeing with him?
3. What does weaning the baby mean?

LESSON 8

OTHER FOODS DURING THE FIRST YEAR

What are some of the other foods which can be given to baby during his first year? How should they be prepared?

There are really very few things which baby should have in addition to his mother's milk or the modified cow's milk, during his first year.

Orange juice can be given to baby when he is 7 months old, — from one to two tablespoonfuls of strained orange juice midway between two morning feedings daily. Do not give any pulp, only the juice. This is to prevent constipation, and the possibility of scurvy, if heated milk is used; and to provide iron for him.

Barley water. Mix one level tablespoon of barley flour with a little cold water. Add to one pint of

boiling water. Cook in double boiler twenty minutes. Strain. Add enough boiling water to make a pint. This can be added to the modified milk according to formula.

Barley gruel is given to promote digestion, and to add food value to the diet. To prepare:

Soak the barley over night. Cook in the same water in double boiler for four hours. About one pint of water remains. Strain. When cold this will be thick like a jelly.

This can be added to the modified milk or given once a day when baby is 8 or 10 months old, instead of mother's milk. Two or three tablespoonfuls of this well-cooked, strained cereal can be given as the substitute.

Dried bread may be given to baby to chew when he is 10 months old. To prepare: Cut bread in thin slices. Put in oven with door open. Dry quickly until crisp but not brown. Give this once a day.

Egg yolk. When baby is 10 months old the yolk of an egg may be given once a day as part of one feeding. Warm the egg yolk and feed to him with a spoon.

This is not a long list of foods to learn to prepare, but it is the best list with milk during baby's first year. Nothing else should be given without a physician's advice.

EXERCISES AND PROBLEMS

1. Make some barley gruel at school. Perhaps you can cook it in the fireless cooker.
2. Make a list of the only foods baby should eat during his first year. Why should not other foods be given?

LESSON 9

WHAT KIND OF CLOTHING SHOULD BABY WEAR?

Baby must be dressed according to the weather. In summer the clothing must not be too warm, and in winter he must be well protected. He is very sensitive to cold or heat.

Summer clothing for baby. In summer what should we remember? The baby should be clothed lightly, especially at mid-day. In the early morning when it is cooler or towards evening, outer garments should be put on. Do not put on so many clothes that baby will perspire. Clothing is worn in order to keep the body temperature or heat uniform. In very warm weather it may be necessary to remove all the clothing except the shirt band and diaper, and sometimes to remove all while a cool sponge is given.

Winter clothes. In winter more clothes are necessary, especially when baby goes out on a cold day: a



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FIG. 125. — A wrapper for cool mornings or evenings.

warm cap, a long woolen coat to turn up over his toes so as to make a kind of bag, and woolen mittens. On very cold days an extra sweater or sacque should be worn under his coat.

A baby's clothing should always be clean. Soiled garments should be removed at once. Diapers should never be used a second time before washing.



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FIG. 126. — Two good-style flannel petticoats.

A is without a waist and hangs from the shoulders. *B* is a simple style with waist.

All clothing should be light in weight and loose, with nothing to prevent the free use of abdomen, limbs, or chest. The weight of the clothing should be from the shoulders, and with as few buttons as possible. As the baby outgrows his clothes, it is necessary for

his comfort to make them larger. Baby should not be dressed for show but for comfort. The clothing should be plain and simple.

This is what nurse will put on, after washing, a wee baby a month old :

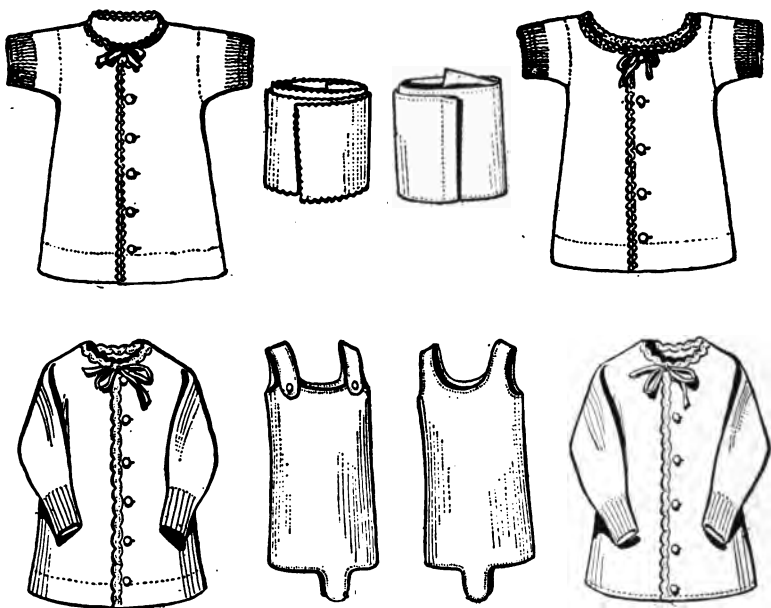
1. First a band around the abdomen. This band to be 18 inches in length \times 7 inches wide (Fig. 127). This is made of a strip of flannel which has *not* been hemmed. It is fastened with sewing stitches. This band is to protect and to support the walls of the abdomen. Can you tear off a piece of flannel, 18 inches with the warp, and 7 inches with the woof or filling threads? Care must be taken not to have the band too snug, as it will cut the flesh or make baby vomit. As baby grows older, at about three or four months of age, this snug band can be replaced by a knitted band which can be bought ready made. These knitted bands can be worn until two or three years of age or longer if baby is not well. The knitted band has shoulder straps and a little tab in front at the bottom to pin to the diaper, and so keeps the abdomen well protected (Fig. 127).

2. The shirt is next, and should be made of cotton and wool, or silk and wool. This garment should have long sleeves, and is put on over the band (Fig. 127).

3. Then the diapers. These are made of 18-inch cotton birds-eye. Linen is too cold. Cut 18 inches long and hem so as to have squares. Two dozen will be enough for a while. If you do not know what cotton birdseye material is, see *Clothing and Health*, page 62. Wee babies sometimes have diapers made of cheesecloth; it is very soft, you know. As baby grows it will be necessary to make diapers of 22-inch birdseye. Cut them square. Can you bring samples to school of cheesecloth and cotton birdseye and show the width and cost?

4. After this, baby's petticoat is put on (Fig. 126). This is of flannel. When he is very young the cotton skirt is unnecessary.

The petticoats, dresses, and slips should not be more than 27 inches from the shoulder to the bottom. Cotton and wool flannel is better than all wool. It is not so heavy or warm and does not shrink so easily in washing. Why? (See *Clothing and Health*, page 204.)



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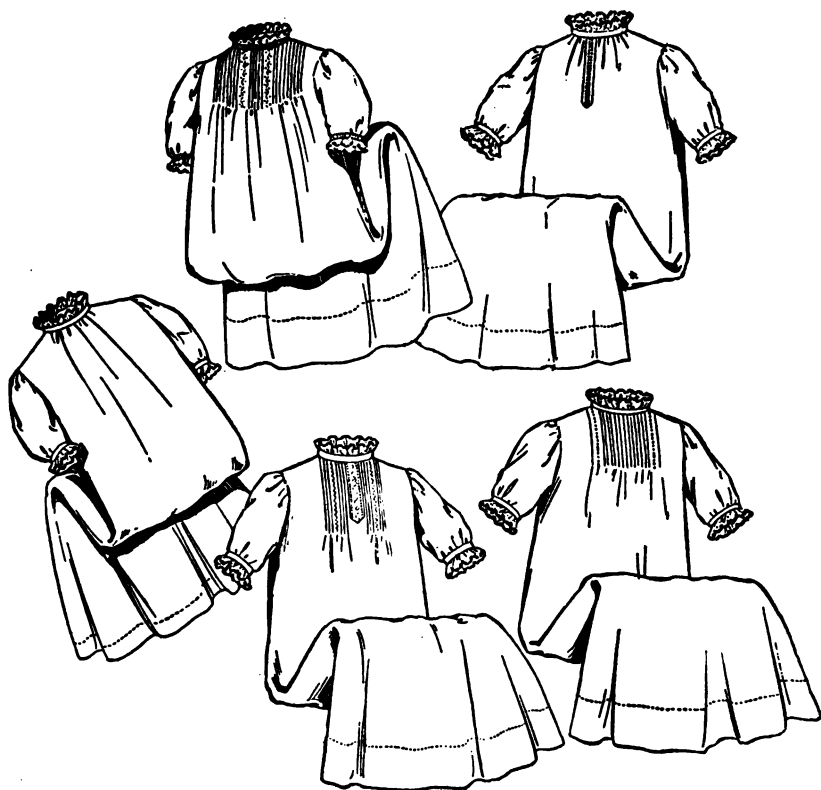
FIG. 127. — Notice the bands of flannel, the knitted bands with tabs, and the little shirts which come with both long and short sleeves.

5. Baby's dress or slip is then put on. Never slip the garments over the head of a young baby, but over the feet. In cool weather a wrapper of flannel opened down the front, or a sacque, and little knitted bootees can be added. When he goes outdoors, a loose cloak and cap, and, in winter, mittens are needed.

Clothing for six months of age. Baby's clothes are shortened at about six months. He should then wear long stockings fastened to the diapers with small safety pins, until he is old enough to wear waists and garters. If baby is delicate he should wear long stockings from birth, or if he is a winter baby it is wise to protect his legs in this way rather than with only bootees. The legs must be kept warm and the body heat preserved, because the blood is feeblest in the legs and the blood circulation not so good in the joints of the knees and lower parts of legs. Many mothers put short cotton socks on baby instead of long stockings of cotton and wool. Perhaps they do not know about this, nor realize that baby's body heat must be saved, so he will grow and his organs operate properly. The body temperature should be 98.5° F. The body, you have learned, is a great machine which needs fuel and gives off energy and heat. In grown people who are not sick, one fourth of the body heat generated is used by the body, and three fourths is given off by the skin, but in young children the power which controls giving off heat is not perfectly developed, so their body temperature varies, and care must be taken that the body does not give off too much heat. Many babies are sick because their skin is subjected to such sudden changes of heat and cold, and their bodies are not sufficiently covered. Usually about 20 per cent only of the surface of our body should be uncovered. When socks are put on baby 30-40 per

cent is exposed, and so baby loses the heat needed. Socks should be used only in the very warmest weather, when baby's skin needs to lose heat.

Have you heard that the body of a grown person gives



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FIG. 128. — Some simple slips which can be used for both night and day wear until baby is put in short clothes.

off 50 ounces of water through the skin each day? Our clothing collects some of this and some is evaporated as it comes in contact with the air. Do you see how necessary it is to keep the baby's body clean so the pores may act properly? If the skin is not clean and if too cold to send out this water through the skin, then the kidneys have to do the work and baby becomes sick because those organs are overtaxed.

Because of this water and heat given off by the body every day, it is wise to study materials and to know which to wear next to the body.

For baby, wool is considered best for his shirt and band and stockings, or half wool and silk, or half wool and half cotton mixture. These materials, wool, silk, cotton, and linen, have different properties; and these properties assist in retarding or conducting heat from the body. Wool and silk protect, and do not conduct heat rapidly; wool fibers are short and curly, and when loosely woven allow air spaces between the loose fibers. This air holds the heat because still air does not conduct rapidly. The layer of air held by the loose wool fibers helps to keep the body warm. Cotton and silk do not have these curly fibers. (See *Clothing and Health*, page 205.) Wool absorbs moisture readily, so some of the body water and oil secreted is taken up. Because of this it is necessary for wool to be properly cleansed.

EXERCISES AND PROBLEMS

1. Make a scrap book or put in your school notebook pictures of the proper articles of clothing for baby. You can cut these from the catalogue.
2. Which fibers are best for baby's underwear? Why?
3. Bring some samples of cotton cheesecloth, cotton birdseye and linen birdseye material. How are they used for baby?

LESSON 10

SHALL WE MAKE OR BUY BABY'S CLOTHING? HOW MUCH WILL IT COST?

Mother's time is very valuable, and there are so many things for her to do that little time is left to sew for baby. It may be a saving of time and money if she buys the clothing ready made.

Shall mother make baby's clothing? The clothes may not wash or wear so well, but mother must decide whether her time must be spent in sewing or otherwise. Many garments can be bought of good materials, well made and simple in style. We must learn to know good materials. It is foolish to make all things at home, such as suits for boys, waists, pajamas, or rompers for baby. Every year the stores are offering better garments. Home-made things cost less, if one has time to make them, and usually give better satisfaction. We must learn to select materials that will not fade, which will be durable and wash well. Every mother or big sister loves to make some of baby's clothing. Patterns are easy to follow. We shall learn how.

Can you not write to some large department store in

a city near and ask for a catalogue of clothing for baby? You will learn the latest styles. Perhaps you need some clothing for the baby at your home, and your teacher will show you how to make out an order slip so as to send for the right sizes. Molly



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FIG. 129. — A petticoat and dress very easily made.

Stark's mother let her send for some for her baby brother.

One can spend a great deal of money for baby's clothing, but this is not necessary. Simple, plain clothing is easier to keep clean and costs less to buy or make. The amount and kind you select from the catalogue, if you cannot go to a store to buy, will depend on the amount of money available.

This is a list of things the tiny new baby will need, at their approximate cost. The dress might be omitted to reduce cost. The slips are used both for day and

night wear while he is very young, and dresses need not be bought until later if one cannot afford them. Look up the word "approximate" in the school dictionary. What does it mean? The second list shows the difference in cost if some of these things are made at home.

If bought ready made.

3 flannel bands	\$0.60
3 knitted bands with shoulder straps . . . . .	.90
12 diapers hemmed . . . . .	.80
3 shirts, cotton and wool	1.35
2 flannel skirts	2.40
3 plain night slips	1.20
1 dress	1.00
1 flannel or knitted sacque . . . . .	.50
2 pairs bootees . . . . .	.30
2 flannelette wrappers	1.00
Total	<u>\$10.05</u>

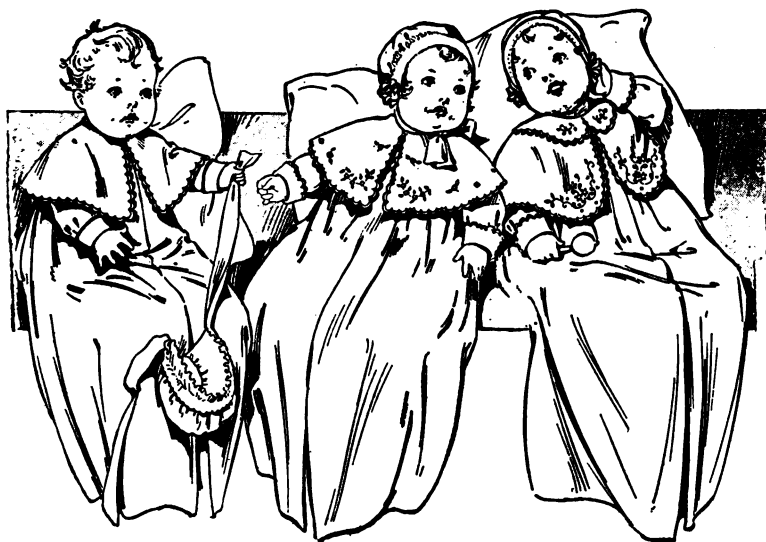
If some articles are home made.

3 flannel bands (home made)	\$0.37
3 knitted bands with shoulder straps . . . . .	.90
cotton diapering by piece 10 yds. to be hemmed at home, will make 20 instead of 12. 18 in. wide . . . . .	.60
3 shirts, cotton and wool	1.35
2 flannel skirts (home made)	1.60
3 night slips (home made) . . . . .	.90
1 dress (home made) . . . . .	.75
1 flannel sacque (home made) . . . . .	.40
2 pairs bootees (home made)20
2 flannelette wrappers (home made)60
Total	<u>\$7.67</u>



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FIG. 130. — Some mittens, bonnets, and shoes which baby will need.



By permission of Best & Co.

FIG. 131. — Some cloaks for baby.

Extra garments, such as cloak and hood and stockings, will be needed later. This is about the price of simple ones :

Cloak	\$2.50 to 5.00
Silk bonnet . . . . .	.75 to 2.00
Cap of worsted . . . . .	.48
Mittens . . . . .	.25
Long stockings . . . . .	.25 to .75
a pair according to kind of material; wool is the most expensive.	

It will not be long before baby will need shoes. It is very important to buy the right kind. It is necessary to buy soft soles at first when he begins to creep. Shoes should be chosen with broad toes and straight soles which fit the shape of the foot. Low shoes are pretty before he walks, but not enough support when he stands alone. A good laced shoe of right kind can be bought for \$1.00 or \$1.25. Baby's feet should be kept dry. Change his shoes if he runs out in the yard and gets them wet. Wet feet cause much sickness.

EXERCISES AND PROBLEMS

1. From a catalogue of baby clothing see how many necessary articles it is possible to buy for \$5.00; for \$10.00. Make a list.
2. How many can you buy for \$5.00, if you make some of them at home?

LESSON II

THE NORMAL HEALTHY BABY IS A JOY

What we have learned about baby.

So we have learned many things which Marjorie Allen can do to help her Aunt Sarah. How busy she will be; bathing Baby Julia, preparing her food, washing her clothes, and sewing for her. How happy Marjorie will feel if she is well and strong because of this good care. In the picture you will see the babies are like little growing flowers. When not cared for, they droop their heads. They need much attention like your garden bed and seeds, in order to grow well. It pays to keep baby well. These are some of the many things to remember:

1. Marjorie will not let people play with baby as if she were a toy.
2. Flies will be kept away, as they carry disease.
3. Baby will be kept away from all sick people. People with coughs or colds, holding baby, can give her the cold.
4. No kissing on baby's mouth.



FIG. 132. — Babies are like flowers in your garden bed. See what this picture tells.

5. No pacifiers, candy, bananas, patent medicines, soothing syrups, sucking of thumb or nipples of empty bottles.

6. Marjorie will not put baby's bottle in her own mouth to test its heat. She will try a drop on the inside of the wrist.

7. No sneezing in baby's food or face.

8. Baby will have a bath every day unless sick.

9. Baby will sleep outdoors as much as possible. Baby needs to have much sleep and to be kept warm. She needs, also, much sunshine and fresh air. Never permit the intense sunshine to glare into baby's uncovered eyes.

10. Baby is to have regular habits for sleeping, feeding, and bathing.

11. Baby should be weighed every week or two to see if she is gaining. A normal baby weighs 7 to 7½ pounds at birth; 15 pounds at 5 or 6 months; 21 pounds at 12 months. So she is then three times as heavy as when born. She should gain about 4 to 8 ounces weekly.



FIG. 133. — Flies and mosquitoes carry germs. Protect baby from them.

12. A normal baby measures 20–21 inches when born; 26 inches at 6 months; 29 inches at 12 months.

13. Baby should begin to walk from about the 14–17th month.

14. At 12 months baby should begin to say words; and to say short sentences by 24th or 30th month.

15. Baby's birth should be registered by your doctor. It often saves much trouble when she is grown and means positively she is a citizen of her country.

16. Baby's bowels should move every day. Convulsions are caused by failure to remove the waste from the body.

17. Ask your doctor about vaccination for baby.

18. Rocking, tossing, tickling are bad for baby's nervous system.
19. Write with teacher's help to your state Agricultural College. Ask about the Baby Contests. See if your baby answers all the requirements. She may win a prize. They will send you a score card.

EXERCISES AND PROBLEMS

1. Have you a baby at home? See how many of the above rules for keeping him well you are obeying.
2. Send to the Agricultural College of your state for a score card. Perhaps your baby brother may enter the contest.
3. Try to plan a Baby Contest at your schoolhouse. Perhaps one of the teachers from the Agricultural College will come to be judge.

REVIEW PROBLEMS

- I. Have you a baby at your house? What can you do to make your baby sister or brother happy, and to keep baby well?
- II. Try to plan with your teacher's help for a Baby Contest. Celebrate Baby Week. The National Child Welfare Society, New York, will send you literature which will help.



CHAPTER V

ONE MUST BE WELL AND HAPPY IN ORDER TO
ENJOY THE HOME WHICH ONE HAS PLANNED.
HAVE YOU THOUGHT ABOUT THIS?

WE have learned how to make home attractive, and how to clean and care for the house in the best way. We have learned how to cook and to sew, but we have not learned how the person doing all these things is to plan so as to get the most out of her life, and to give the most. One must be well and happy in order to live well and to enjoy the home which has been planned. Have you thought about this? Do you know that your body, the real house in which you live, must be made attractive, must be kept clean, and its management must be so planned that one thinks in the right way and is happy? Bodies like houses must

be managed. Do you know that it is possible to make real plans for living so as to be happy? Miss James told the Pleasant Valley girls and boys all about this too.

Some people believe that life is to be lived selfishly, but those who get the most out of life know that it is through giving of one's self that one gets, and that there are duties towards the family and those in the world about us to be considered. As one grows older, one has a desire to be of service in the world. Lawyers, physicians, preachers, artists, musicians, teachers, girls, and boys all have a chance to give of their talents to the world about them. Can you name some great citizens, lawyers, physicians, or others who were not professional people, who have rendered great social service to the world? Can you think of some women who have done great good? You know about Mrs. Ellen H. Richards? You can read the story of her life. It is very interesting, and shows how one young girl planned to serve the world. It is largely because of Mrs. Richards that you have this study of homemaking in your school to-day. Are you not glad? Do you celebrate Ellen H. Richards Day at your school? It is December 3, — her birthday. As you know, the League girls of Pleasant Valley had a party when they completed furnishing the house; perhaps you can plan such a celebration.

Here are some of the things which Miss James told the boys and girls will help one to make plans for happiness:

Work	Plenty of pure water
Pleasure	Plenty of sunshine
Rest	Plenty of air
Exercise	Plenty of pleasant thoughts
Cleanliness	Having something to give
Proper food	
Proper clothing	

Would you like to learn some things which you can do so as to make the most of each day and to make your life one which will be efficient and helpful? Do you not think that it is our duty to keep ourselves in health and happiness so that we may do our share of the world's work? We shall study some of the ways we can help.

LESSON I

PLANNING FOR TWENTY-FOUR HOURS

Do you ever stop to think that there are twenty-four hours in every day? Are you planning to spend them to the best advantage? Have you thought that one must plan wisely *each* day in order to be well and happy?

Jane Andrews, who lived at Pleasant Valley, became so interested in planning her days that she decided to make a kind of clock and each day to block it off, showing how she had spent her time. The first day her clock looked like Fig. 134. Can you discover what is the trouble with this day? Another day looked like Fig. 135; it was Saturday.

Jane was troubled because Miss James had told the

girls that "all work and no play makes Jack (or Jill) a dull boy," and that each day should be so planned

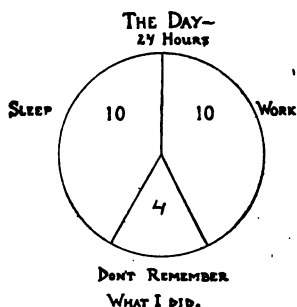


FIG. 134.—This is Jane Andrews' clock, showing how she spent her day.

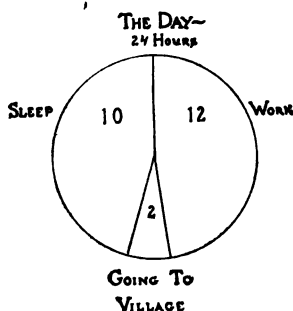


FIG. 135.—This is the way Jane divided her time another day.

that there is time for the right amount of rest, of pleasure, and of exercise, as well as for work. So Jane tried again to plan with these thoughts in mind.

Figure 136 shows how she divided her clock another day. Eight or nine hours for sleep or rest. Half an hour of this rest was taken in the afternoon, when she returned from school and rested herself in the big chair while reading a good magazine story. This was pleasure too. Six

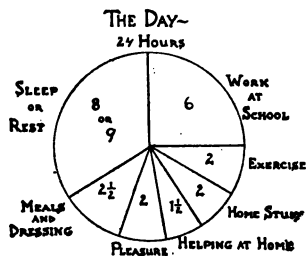


FIG. 136.—This is the division of time Jane enjoyed the most.

hours were spent at school, at work (9–12 A.M. and 1–4 P.M.). Two hours were for exercise, one in

walking briskly to and from school, a mile and a half each way, and the second hour for tennis. This was pleasure as well as exercise, for she enjoyed playing on Sadie White's tennis court. Then she spent two hours studying her lessons at home, which made the work hours about eight. Two hours were spent at meals. She also helped mother about two hours that day: an hour in the morning attending to her own room and mother's, and preparing the lunches for the children to take to school, and again at supper time when she helped prepare supper and wash the dishes. The other two hours were spent at Marjorie's home early in the evening, for Marjorie had invited some of the girls and boys in for games until 9 o'clock. Have you ever tried to make a clock for your day? Jane discovered that her days varied, but that the fundamental principles must be kept in mind in order to keep well and happy. Miss James says that everybody should keep these ideas in mind each day, older people as well as school girls, if they wish to keep well. They are these:

1. **Sleep or Rest.** Every growing girl or boy from 12-15 years of age needs 8-10 hours of the day for sleep. Do you realize that the body uses up its food and the tissues wear out? Some of these tissues are replaced by nature while we sleep. The tiny cell builders of our bodies work then and repair the body for its work next day. Many boys and girls who do not have enough sleep become ill because nature does

not have this opportunity to restore the waste of their bodies. Their nervous systems are disturbed and all kinds of headaches, nervous diseases, and unpleasant things result, which prevent one from being well or happy. Did you ever notice baby brother? He grows very rapidly because he sleeps so much. Are you keeping *your* house in good repair or are you letting it run down?

This sleep or rest should be taken in a quiet, dark room which is well ventilated. The picture on page 171 shows how to open the window. Why is this circulation of air necessary? The body tissues store up oxygen while we sleep. When we are active during the day, we use up that store. Can you see now why we should have as much fresh air as possible at night? Many modern houses are built with sleeping porches because people are beginning to realize the importance of plenty of fresh air at night. It is better to sleep in a dark room, too. Any ray of light stimulates the brain. Do not sleep with a light in your room if you wish your body to repair itself at night. Noise is also a disturber of sleep. The nerve centers are irritated by the sound, and the body is less able to do its duty next day. Many girls are not well and are not prepared for their day's work because they sleep in a "stuffy" room, and next day are dull and languid. Have you heard of the white plague? It is the name for a dreadful disease called tuberculosis. Many boys and girls contract this disease because they sleep in poorly

ventilated rooms, with those who have it. Country people as well as city people often have this dreadful disease. It is sometimes cured, when taken in time,



Courtesy of J. B. Lyons & Co.

FIG. 137. — A sleeping porch is a kind of life insurance.

by the fresh air treatment, — living and sleeping outdoors. It is safer and better to prevent this by always having plenty of air, day and night. With proper bed coverings to protect, no one should be afraid to sleep

with the windows open top and bottom, even on the coldest winter nights. Night air is all the air we have and will hurt no one. Sleep in a flannelette gown, and have some warm slippers near. In summer the same is true. One must have all the air one can get. Many babies become sickly little children because they have been deprived of plenty of air while growing. Fresh air is absolutely necessary for health.

The clothing worn during the day should be aired at night, and the night clothing aired during the day. With your knowledge of textiles can you tell why?

Sometimes Jane discovered that some of her rest was taken during the afternoon, when she would throw herself on the couch for ten or fifteen minutes. This is a good thing for growing girls or for women to do. Relaxation of this kind is so helpful and restful that many women who are not very strong are able to accomplish a great deal of work because of frequent rest periods during the day. For complete relaxation, close the eyes, lie flat on the back, and be absolutely quiet with all the muscles relaxed. Try also not even to think. This is a real gaining in time, for a tired woman is more able to go on if she will run away from



FIG. 138. — This girl is learning to rest.

her work for fifteen minutes and relax. It is an art to learn to relax and to rest, and is well worth while. Try to persuade your mother or aunt to try it when she is busy and tired.

2. **Work** is the second principle which Miss James says must be kept in mind if one wishes to keep well.



FIG. 139. — This girl is learning the joy of work.

Every healthy person needs some work to do. Have you ever watched the birds at work, the squirrels, the ants, the bees? They all love to do the tasks which have been given them by nature. School girls have their studies and home duties as their work. Father has his farm work or the store or a profession. Mother has her work in caring for her family. Sometimes girls have other work outside of the home.

When you have finished school, are you planning to stay at home and help mother, or are you going to work outside, or to prepare yourself for some life work until you decide to marry and have the work of homemaking? Everybody must have some work to do in the world. It keeps one sane and sweet and happy. When there is joy in work, people are happiest. One's work can be

joyful when there is interest in it. Housework may be drudgery to some people who do not think about rest and pleasure too, in the daily plan. All girls who have



FIG. 140. — Tennis or any outdoor game is pleasure and exercise too.

studied homemaking and understand the reasons for doing certain tasks and how, are intensely interested in their daily home work. Think of all the interesting things they studied, — the tiny yeast plant with its secrets of growth for breadmaking, and all the other interesting bacteria of good and bad kinds in our

homes. How are we fighting them or using them to do our work? Isn't it good fun to learn how; and doesn't it make one's work much more interesting?

The person who can work outdoors is very fortunate, for he has the fresh air and the pure sunshine to help him.

Girls should know how to earn some money, especially if fathers cannot supply them with some for clothing and other necessary needs. There is great pleasure in working for one's own money. Some day we shall talk about some of the work girls can do in order to earn money, both at home and away from home.

3. **Pleasure.** Miss James says pleasure is just as necessary as work if one is to keep well.

Every girl, in fact every person in the world, needs some pleasure as well as work and sleep during his day. Pleasure relieves the body of its working strain and enables it to resume its duties with a feeling of refreshment. The change from the worries and strain which often accompany certain lines of work, to some simple pleasure, has a marked effect on the nervous system. The tension is relieved and the body is able to endure more because of this change from the strain of work. It is economical of working force to endeavor to take some pleasure each day.

Pleasures are of many kinds and are taken in such different ways by different people. Sometimes they are in the form of exercise, as a game of tennis, or golf,

rowing, skating, skiing, or walking with a pleasant companion. Many of these simple pleasures cost nothing and are very beneficial, and count in two ways in one's day.

Sometimes a good book, a chance to be quiet and to think or to read a magazine, are pleasures for some people. Again it may be a visit, a cup of tea at the home of a friend, a guest or two for a meal, or an evening party. Surprise birthday parties are great pleasure, and so are club meetings at one's home, or just a family gathering in the evening with a good story read aloud while mother sews or rests, or with music from the graphophone or pianola, — if no one of the family is musically inclined. Many of these simple pleasures cost thought but, as a rule, very little money.

Picnics are good fun when two or three families join and go to the river or the mountain for a half day's or a day's outing. An auto ride is another diversion and,



FIG. 141. — This is the way Barbara Oakes likes to take her pleasure.

if each pays a share of the expense, such a pleasure taken occasionally is a great benefit. Do you know that some people make their budgets without thought of any money for pleasures? Some day we shall study about this. Do you know what a budget is? Miss James keeps a budget. It is her plan for spend-



Courtesy of Mrs. D. S. Lunsden.

FIG. 142. — This Pleasant Valley family and their friends are off for a happy day.

ing her money or income. She divides it in such a way that she gets the greatest amount of pleasure from her income. Many people live without plans for spending.

There are many pleasures which one finds in the towns or cities; but often they cost more and are not any more enjoyable than the simple pleasures which can be enjoyed for less money.

Did you ever camp out? It is a great pleasure. The Alden family goes every summer for a week; and, although they camp only three miles away from home, it seems as if they were hundreds of miles from Pleasant Valley, for the scenery is so different and the country so very wild (Fig. 143). Mr. Alden finds



Courtesy of Hanoum Camp for Girls, Thelford, VI.

FIG. 143. — The Aldens think this beautiful spot seems miles away from home.

that he can get away from the store more easily during August than at any other time, although it seems as if he ought never to leave. Mrs. Alden thinks it is necessary for every one to have a short holiday, and so they plan for it.

What a joy it is to get away, — the woods, the river, the stillness, and the stars, — how they all enjoy it! And then just doing as they please is a pleasure. All wear their camp clothes. This costume is very com-



FIG. 144. — John Alden as he looked while at camp.

fortable; for the bloomers, skirts, and middy blouse permit freedom of action. John Alden insists on wearing his Indian suit (Fig. 144) which he wore at the Roger Williams pageant held at Pleasant Valley. He

enjoys “making believe.” Mr. and Mrs. Alden built a small house in the woods several years ago and located it near a beautiful spring of pure water. One



Courtesy of Hanoum Camp for Girls, Thetford, Vi.

FIG. 145. — The tent erected for May Alden's friends. All will enjoy it.

must be very careful in choosing such a spot that the water is not polluted in any way. The house is very simple and really only a shelter; but then they all like to sleep outdoors part of the time. They send up by wagon their tent and food supplies. The tent is



Courtesy of Hanout Camp for Girls, Thetford, VI.

FIG. 146. — Mrs. Alden broils bacon in a pan. Notice the rack which supports the pan.



Courtesy of Camp Fire Club.

FIG. 147. — Bacon broiled on a forked stick over a fire tastes better than when broiled in a pan.

used by May Alden's friends, as she usually invites several of the Pleasant Valley girls to spend a night or two while the family is at camp. What fun it is! The girls look as if they were having a very good time (Fig. 145).

Mrs. Alden plans so as to have as little work to do

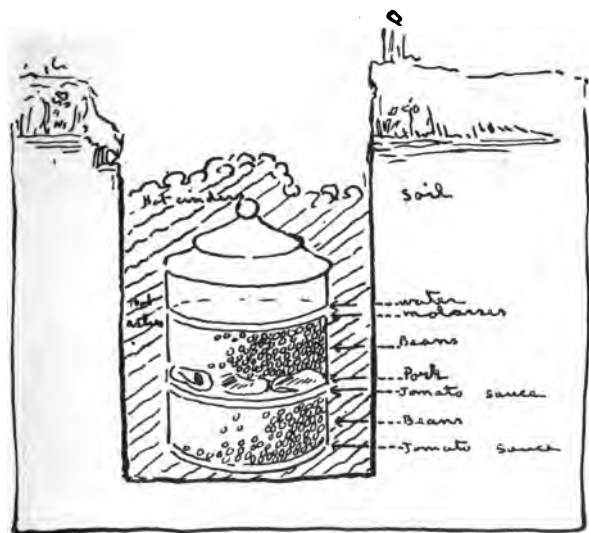


FIG. 148. — Notice the arrangement of cinders and soil around the "Bean Hole."

as possible, and gets the meals easily, for all help. Have you ever prepared breakfast in the early morning out of doors? Bacon is certainly delicious in the early morning. In the picture Mrs. Alden is preparing it in the pan (Fig. 146) and Ethel Alden is watching. Ethel thinks it is more fun to hold the bacon on a

long-pointed stick and cook it in that way. Have you ever tried? Figure 147 shows the way the girls managed with a forked stick. Mrs. Alden always plans to have a "Bean Hole." While cooking supper she boils the beans. The diagram (Fig. 148) gives an idea of what is put into the bean pot, and shows the arrangement of hot cinders from the supper fire. The pot is buried and the soil covers the whole. In the morning the beans are perfectly delicious.

Flapjacks, coffee, and baking-powder biscuits are great favorites at the Alden camp and are easily prepared over an open fire.

Coffee.

Measure the coffee and water according to the number to be served. A tablespoon of coffee for each cup and one for the pot makes good coffee. To the ground coffee add the white of an egg or the shell of an egg. Put coffee and egg into the pot, adding a little of the water, and stir. Add remaining water *cold*, stirring thoroughly. Allow water to rise slowly to the boiling point, and boil one minute. Remove pot, pour in a small amount of cold water, and let stand five minutes until settled. Pour off liquid coffee and keep hot until served.

Flapjacks.

Mix $2\frac{1}{2}$ cups of flour, $\frac{1}{2}$ teaspoonful of salt, and $1\frac{1}{4}$ teaspoonfuls of soda. Then add 2 cups of sour milk, one egg well beaten, and 2 tablespoons of melted butter, in the order given. Mix and drop by spoonfuls on the pan or griddle. Cook until edges are done and bubbles appear. Turn the flapjacks quickly and cook on the other side. They are good served with scraped maple sugar.

Baking-powder biscuit.

Mix together 1 pint of flour, 3 teaspoonfuls of baking powder, and $\frac{1}{2}$ teaspoonful of salt. Cut in, with a knife, two tablespoonfuls of butter or half lard and half butter. Add 1 scant cup of milk, or, if you use sour milk, add also a scant teaspoonful of soda but no baking powder. Place a piece of smooth brown paper on a flat



Courtesy of Hanoum Camp for Girls, Thelford, Va.

FIG. 149. — The Alden family enjoying their canoe.

rock. Dust the paper with flour, turn out the dough, dredge with flour, and pat into a firm mass, until $\frac{1}{2}$ inch in thickness. Bake in one piece or cut into biscuit shape with the top of the baking-powder can dipped in flour. Place in the large frying pan and cover with a tin cover. On top of the cover place hot coals. Place another pan beneath so that the bottom of the biscuit will not burn. Keep near the hot coals. Allow from $\frac{1}{2}$ to $\frac{3}{4}$ hour for the baking.

So the days go by, — plenty of leisure, fresh air, and fun. This year Mr. Alden has rented a canoe, and the family enjoys it thoroughly. Figure 149 shows them at evening time on the river.

The townspeople of Pleasant Valley are making much of the days that we all love, and are reviving many



Courtesy of Mrs. L. Hepburn.

FIG. 150. — The stockings were hung by the chimney with care.

happy old customs. They make much of Thanksgiving, Christmas, the New Year, Lincoln's and Washington's Birthdays, Memorial Day in May, Arbor Day, and Labor Day, and are planning for entertainment that costs very little in money and that does not depend upon eating for the pleasure it gives.

Christmas Day. The celebration of Christmas Day

this year has been different from anything that Pleasant Valley has ever known, for there as everywhere is the feeling that in these days we must be more helpful than ever to people in need. The ministers of the town and the teacher discussed plans with the grown people and the children, and they all agreed to work and play together. Instead of giving presents to each other, the girls and boys collected their old toys and dolls at the school, mended the toys, and re-dressed the dolls. In their cooking lessons they made simple candy and put it in pretty little bags of tarlatan and bright worsteds which they sewed very quickly. These were all packed in a box and sent to the nearest city to the very poor little children who otherwise would have nothing at all. In the top of the box were laid evergreen vines, and branches of red berries, wrapped in paper.¹

And what was done in connection with the Christmas tree? Instead of cutting down a fine old inhabitant of



Courtesy of N. Y. Edison Co.

FIG. 151. — An out-door Christmas tree for places where the trolley company furnishes electricity.

¹ This was done in one school connected with a State College Christmas, 1915.

the woods and trimming it in the Sunday School, they made a large spruce growing near one of the churches their Christmas tree. All the people from the different churches gathered there. They met just at dusk, lanterns being hung on the tree to make it bright and festal, and together they sang the old carols. The church was ready, trimmed with green boughs brought from the woods, in case of stormy weather. The little children were given bags of home-made candy, but this was all in the way of presents.

In the morning two or three of the farmers loaned their big sleighs or sledges, which were filled with hay. The boys and girls and a few of their older friends dressed themselves warmly and, after an early breakfast, went dashing in the sleighs along the roads and sang the gay carols again, at the house where the families had not been able to join the gathering on Christmas Eve. The grown-ups and young people pronounced this the happiest Christmas they had ever known.

Barbara Allen received a letter shortly after Christmas from a cousin in California, telling the same story, except that huge wagons were used in place of sleighs for the carol singers.

Here are the recipes that were used for the candy in the bags :

Peanut brittle.

Shell 1 quart of peanuts and chop them in small pieces. Put 2 cups sugar in a saucepan and place over a moderate fire. Stir from the bottom until the sugar is entirely melted and is of a rich brown

color. The sugar will lump badly at first, but these lumps will entirely melt in time. Turn the chopped peanuts and $\frac{1}{4}$ teaspoonful of salt into the sirup and stir together and immediately turn out on a greased pan. When cold, break into pieces.

Pinoche.

Mix 2 cups of dark brown sugar, 2 tablespoonfuls of butter, 1 cup of milk, cream, or water, and $\frac{1}{4}$ teaspoonful or less of cream of tartar, and place over a hot fire. Stir steadily until the mixture begins to boil. Stir occasionally after this until, when half a teaspoonful is dropped into cold water, it may be rolled to a soft ball with the fingers. Set the saucepan in a cool place and leave until it becomes just lukewarm. Add one teaspoonful of vanilla and stir the mixture until it becomes thick and seems a little grainy. Pour it into a greased tin and as soon as possible cut into squares. The exact point at which to remove the pinoche from the fire and again at which to cease stirring and pour into the pan, is a matter which only practice can teach. The very dark brown sugar contains some acid, and therefore less cream of tartar may be used. Chopped nuts may be added with the vanilla to the pinoche.

Washington's Birthday. On this great day the townspeople met in the evening, dressed themselves in old-fashioned costumes, and had a spelling match. Who do you think won the match? Grandmother Stark.

Fourth of July. You have all heard about a "safe and sane Fourth." It certainly is a lively sport to send off fire crackers, but is it worth while to run the risk of losing eyesight, or to blind someone else, "just for fun?" Fourth of July is a time to have a celebration illustrating the history of your home town. There

is not a place in this country that should not know the town or state history as well as that of the whole country. At their picnic on the Fourth, the Pleasant Valley school children gave a pageant of the story of



Courtesy of New York College of Agriculture, at Cornell University.

FIG. 152. — The quilting bee.

Roger Williams, who went to Rhode Island from Massachusetts and found friendly Indians there. All the people of the town were gathered on the shore of the lake, waiting eagerly to see the little play. From behind a wooded point, a rowboat came toward the

shore with boys and girls in costumes as much like those of the old times as possible. Roger Williams stood at the bow wearing a tall hat made of paper, of the shape to be found in the pictures of Puritan days. As the boat neared the shore, from behind a cluster of bushes came a group of Indians. The chief went forward, and, as Roger Williams stepped from the boat, said, "What cheer?" This is the Rhode Island tradition. The Indians then welcomed the pilgrims to what would have been their "squantum," or clam-bake; but as there are no clams in Pleasant Valley they served a fish chowder, which had been made in large quantities, and was the principal food for the picnic lunch.

There is a pamphlet issued by the U. S. Government, at Washington, that gives delightful suggestions for town celebrations. You will find much pleasure in inventing simple and interesting entertainments for festival days. Costumes of paper are very effective, and are easy to make.

So we learn that pleasure is quite necessary if one is to keep well.

4. Exercise. Do you plan systematically each day for some exercise? It is just as important as sleep or work or pleasure if one is to keep well. Sometimes one gets much of this exercise in doing one's daily work, but it is exercise in the air and sunshine which counts for most. The body needs sunshine as well as air in order to make its repairs. How are you planning

for this? When exercise is enjoyable it is of most benefit, so exercise which brings pleasure in connection with work is health-giving and a delight.



FIG. 153. — Work out of doors is helping to make strong women.

Girls and women, especially, often get exercise from daily work. Perhaps some of your exercise and pleasure comes from cultivating your tenth of an acre as a member of a Canning Club, and from spending

the money earned in that way. It is a good thing for women and girls to do some garden work, for the whole muscular system is benefited. Housework or "chores" are general body developers. Sweeping, cleaning, making beds, churning are all good. Work outdoors tends to develop the body more than exercise taken in the house.

Learn to walk. A mile or two at first, and four miles a day later is not too much for a growing girl or boy. One breathes five times as much air while walking as when sitting still. Do not "harness up" or jump into the motor to do an errand a mile away. You may save some time at the expense of your health.

Many people do not know how to breathe properly. This is very important because our bodies must be supplied with oxygen from the air if all its parts are to grow well and to be strong. Just as the plants breathe through their leaves and the fish through their gills, so living human beings breathe through their lungs. Some people take air into their lungs through their mouths. This is not a safe way. Air should enter through the nostrils, and through the windpipe which supplies it to the little sacs of the lungs. Sometimes children or grown people have growths in their nose passages and so breathe through the mouth. When one breathes through the nostrils, the air is warmed and made moist as it passes down to the lungs, and the dust is sifted by the hairs in the nostrils. That is the right way to breathe. When one breathes through

the mouth, the air is cold as it reaches the lungs and may be filled with dust too. Is that a good way? When people breathe through the mouth, they should consult a physician about the growths in their noses.



Courtesy of Hanoum Camp for Girls, Thelford, Vt.

FIG. 154. — "Hiking" is good fun and the best kind of exercise.

No one can be well with such troubles, for then the body is not supplied with enough oxygen.

Do you know that our lungs require so much air that we are constantly taking in fresh oxygen and breathing out carbon dioxide? Can you imagine what happens to the body when one wears tight corsets, shoes, collars, or other tight clothing? Can you think what happens when people sit bent over and the lungs are not able to get all the oxygen they need? Yes,

sometimes tuberculosis or some other dread disease follows because the body has not had enough oxygen to make it grow properly and to repair the daily waste of the body. Tight clothing and bent bodies prevent the supply of air from reaching the lungs. The way to breathe properly is from the diaphragm, which is fastened to the lower border of the ribs. Ask your teacher to practice right breathing with you, and sit and stand in school so as to get the oxygen your body needs. Many people are ill, because they do not breathe properly; and really do not know why. The Pleasant Valley boys and girls have breathing exercises for five minutes every day. They are learning how to breathe.



FIG. 155. — What will happen to this girl if she does not learn to sit erect?

Other outdoor games of all kinds are the best kinds of exercise. They develop the large muscles of the limbs and trunk of the body. Are you learning to swim, to walk, to run, to take walks up the mountain sides? These need cost one nothing but the time and effort. Are you planning for exercise every day?

There are some people who must exercise indoors. There are many exercises for developing the different parts of the body. Miss James has taught the girls some good ones in the calisthenic classes. Dumbbells



FIG. 156. — Are you learning to climb mountains, too?

and wands are sometimes used, and so both arms and legs may be exercised at the same time.

It is exercise each day that counts. How do you think you would feel if you stuffed your body with enough food to last for one week? Many people exercise in that way; they seem to forget that it is each day which counts in keeping the muscles of the body in good order. Study yourself. Are you sick and ill and unable to work or play? If so, you should feel ashamed that you have not cared for your body intelligently in order to prevent illness. Think of the loss to our country when men are so inefficient that they can work only half the time. Proper exercise should help one to be efficient.

Miss James told the Pleasant Valley children that there are a few other things which one can think about each day and which help to keep one well. They are proper clothing, proper food, and proper thinking. We shall study next lesson about how they can help too.

EXERCISES AND PROBLEMS

1. Make a clock showing how you spend your 24 hours. Is your clock different each day? Are the necessary principles observed each day?
2. What kind of pleasures do you like best for your day? How do you plan for pleasures in your town?
3. What work are you looking forward to doing when you finish district school?
4. How much sleep do you think girls of 12-13-14 years of age

should have? Have you a sleeping porch? Can you plan to sleep outdoors?

5. Practice right breathing at school. Are you sitting properly? Is your school room properly ventilated?

6. How does fresh air help to keep one well?



FIG. 157. — Do you enjoy calisthenics? Try them on the school lawn.

LESSON 2

SOME OTHER HELPERS IN KEEPING WELL

There are other helpers whose services we can have, if we wish them, in the battle of keeping well. Jane discovered that she had to have their help. Do you?

Jane spent two hours each day at her meals. After Miss James' talks at school, she realized how important it is to think about what one eats and drinks. Proper food and drink are great helpers in the battle of keeping well. If one is not properly fed one cannot be very happy. You have thought about this in your studies in *Food and Health*.

1. Proper Drink. Did you know that some people never stop to think about the kind of water they are drinking or its source? Do you know that water collects bacteria from the ground through which it soaks, and gathers it also from the air as it falls to earth from the clouds? Have you ever looked at a drop of water through a microscope? What did you see? Pure water is an absolute necessity if one is to keep well, and one should have plenty of it. How many quarts of water do you drink each day? Miss James told the girls to plan to drink about two quarts of pure water—that is, about eight glasses—every day. Most people think this is necessary, but forget to do it. Two glasses in the evening and two in the morning on rising, and if possible the other four between meals. This is worth remembering, for it is such a simple thing to do in order to keep well. One sometimes has to learn to drink water. It may be an effort at first, but keep on trying.

The water we drink should be pure. The harmful bacteria in water supply sometimes come from poor drainage. They cause typhoid fever, and other dread-

ful diseases. You have learned about this in your textbook, *Food and Health*. Are the people living near you permitting their cows to pollute the streams of the water you drink? Are the outhouses placed so that the drainage from the cesspools or barns will contaminate your well? It is worth while investi-

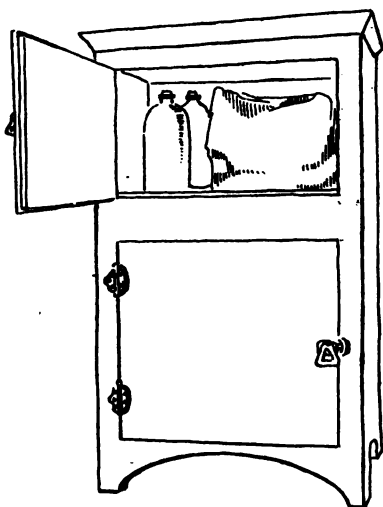


FIG. 158. — Water can be placed in clean bottles and kept next to the ice.

gating. Sometimes typhoid fever comes from milk. Perhaps the milkman is washing his cans or hands in water of a stream which is polluted.

If there is any doubt about the drinking water being pure, it is possible to protect oneself by boiling the water, until investigations can be made and the dangers corrected. Boiling kills bacteria.

Filtering does not kill the germs. It is wise not to use ice in water, as the ice often contains bacteria. A safer way is to put the water in bottles and place them near the ice or in the cool cellar or vat where the milk is chilled. This may save much trouble and will give you pure drinking water.

It is not necessary to say that water is the best and safest drink for growing boys and girls. Alcohol in

any form, in so-called "soft drinks," or in cider or wine of any kind, is very injurious. Alcoholic drinks make criminals of men and often lead them to the insane asylums. The money spent for drink is wasted; for it is not used for better living or for the home or saved for future uses. The drink habit makes very unhappy homes. Many men cannot support their families because the money they earn is spent for drink. Then the mother and children have to work harder to help, and often have not the necessary food or clothing to keep them well. All this can be prevented by drinking only pure, sparkling water. Are you helping to fight this enemy, alcohol? Miss James says that sometimes when people do not have the right kind of food to nourish the body, the body craves drink; and so many men are drunkards because they do not have proper food. Are you not glad to learn how to prepare and serve good nourishing food in your home?

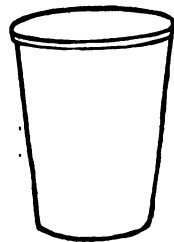


FIG. 159. — A clean cup for each person.

What kind of cups are you using at your school? Have you noticed that the railroads and steamboats in some states are now required to furnish the individual drinking cups? Why is this wise? Here is a picture (Fig. 159) of one.

2. Proper Food. It is just as difficult to obtain pure food and proper food as it is to get pure water to drink. One must think about this too each day.

Have you ever been hungry? Do you know that is the way the cells of your body call for food? You have learned before that the body is a machine and is constantly using the food which is supplied to it to produce energy for work. The cells need to be repaired in order to perform this work. Have you ever thought that father or brother, working in the field all day, can eat more food than you can sitting more quietly at your work at school?



FIG. 160. — One must learn to choose the proper foods for health.

Why is this so? You have learned in the book, *Food and Health*, that one must learn to choose the right kind of food in order to be properly nourished. A body which is not nourished properly cannot do good work or be happy or make others happy.

Jane is learning to select from the foods offered at table those which she needs for her daily work, instead of eating everything which is served. One has to learn to do this. In the book, *Food and Health*, you can learn how too, if you wish to keep well. One cannot enjoy anything if one is ill. Is it worth while, do you think, to plan to keep well?

3. **Proper Clothing.** Another secret, Jane says, is learning to wear proper clothing. It does not take much time each day, but still one must learn to think each day about it. If it is cool and rainy Jane thinks to put on her heavy boots and her rubbers and perhaps a heavier coat or rain coat. She plans as she dresses to protect her body according to the weather. Miss James has taught the girls the secrets of the body and how the heat it makes must be conserved at times. If Jane does not think and wears very thin stockings and low shoes on a cold, rainy or snowy day, what do you think will happen to Jane? She may not feel it at once, but some day she will surely have to pay for her neglect of her body. Nature evens up things when we disobey.

It is well to remember that if our houses are very warm we should wear thin clothing indoors and protect our bodies with outer garments when we go outdoors.

In summer it is well to remember to protect the head with a bonnet or hat while working in the garden, and to wear appropriate shoes and clothes for comfort.

Proper corsets and underwear, Jane has learned, affect health. See page 245 in *Clothing and Health*. Have you learned that lesson too?

EXERCISES AND PROBLEMS

1. How much water are you drinking each day? What facilities have you at school for pure drinking water?
2. Do you have your own drinking cups? Why?

3. Why must one think about choosing the right foods?
4. What kind of clothing do you wear on a very warm day? On a very cold day? Why is there any difference? Tell some ways in which clothing affects health.

LESSON 3

IN CASE THERE IS SICKNESS AT HOME

It is wise to try to prevent sickness by thinking about the things we have studied; but when it occurs how can a girl help?

What can a girl do to help when there is sickness in the house? When the illness is very serious, the help that a young girl can give sometimes seems very little; but when Grandmother Stark was ill, Mrs. Stark said afterward, she did not know what she could have done without Mollie, although some one had to be called in to help in caring for Grandmother. Keeping the house quiet is one of the important things to remember. Mollie succeeded in doing this by amusing the children outside of the house, and by keeping them busy in quiet ways indoors. Mollie sometimes sat with her grandmother in the shaded room that had plenty of fresh air. Mrs. Stark had removed unnecessary furniture, and she herself and the nurse and Mollie always went into the room with soft shoes that would not squeak, and with skirts and dresses that did not rustle.

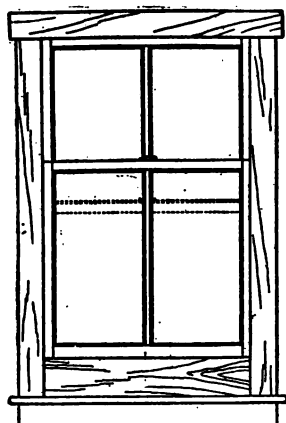
Airing the room in sickness. The sickroom must be thoroughly aired two or three times a day, the patient being covered and shielded from any wind that

may blow upon her. Between these airings off, fresh air should be passing in at the window all the time. A board can be set under the lower sash, or the window can be lowered from the top and raised at the bottom with pieces of cheesecloth over the openings. These will prevent a strong draft and yet admit the air. (Fig. 161.)

Serving food for sick people. When the patient is very ill, the food must be prescribed by the doctor. When Grandmother Stark was getting better, however, Mollie and her sisters found that they could please her and persuade her to eat a little, by taking her a dainty tray with simple food well prepared.



FIG. 162. — A comfortable corner for a convalescent.



*U. S. Department of Agriculture,
Farmers' Bulletin 807.*

FIG. 161. — Ventilation without drafts, secured by placing a board beneath lower sash of window.

Here is a picture of a corner of Grandmother's room with a comfortable chair, and a tray on the table, waiting for her. Figure 164 shows the tray more plainly. The cloth on the tray should be daintily



Courtesy of Misses Allen, Deerfield, Mass.

FIG. 163. — Sunday afternoon with Grandmother.

clean, and only a few dishes and a small quantity of food should be placed on it. Grandmother began to feel better towards Christmas. There is a sprig of holly, as you see, placed at the back of the tray to give a bit of cheerfulness and beauty.

What food may we give? Eggs and milk,

chicken broth, or beef tea, sometimes fruit juice, and well-made toast are among the proper foods. At times a patient can retain the white of egg stirred with a little water when no other food can be kept upon the stomach. During convalescence, gelatin jellies and a bit of chicken or pigeon can be given. Here are a few of the ways in which Mollie and her sister prepared food for Grandmother :

Making toast. Toasted bread can be digested when the plain bread cannot, for the browning process changes the starch and, in fact, partly digests it. It is by no means easy to make a slice of toast an even golden brown, well dried all the way through. Moist bread toasted on the outside alone is not wholesome for a sick person. Here are the steps in toasting :

1. See that you have a fire with clear, bright coals for the toasting. If it is summer and you are using a kerosene stove, the bread can be browned in the bottom of the kerosene oven.
2. Use bread a day old or even older.
3. Cut the bread in even slices, — not more than a quarter of an inch thick.
4. Put the slices firmly in the toaster or on a fork with a long handle.
5. Put the toaster near the fire, changing quickly from one side to the other. Do this until you have an even golden brown on both sides.

A few other points: A person who is not feeling well likes to see dainty food. The bread for toasting can be cut in triangles, the crust being taken off before the toast is made. Toast that becomes too brown and has to be scraped is not a success. You had better give that slice to some one else and make another piece for your invalid.



FIG. 164. — A tray with poached egg and cocoa.

To serve the toast. It may be buttered, if the patient is allowed to take butter. To serve it soft, pour on a little hot water from a teaspoon, or set a

steamer in the top of the tea kettle and moisten the toast in that. If it is to be milk toast, prepare the milk as directed in Lesson 8, *Food and Health*, using not more than a tablespoonful of flour to a pint of milk.

Lemon jelly. This is a nourishing dish and one that a person who is sick will enjoy. This is how to prepare it :

Use $\frac{3}{4}$ cup of lemon juice, or $\frac{1}{2}$ cup orange juice and $\frac{1}{4}$ cup lemon juice. Soak 2 tablespoonfuls or $\frac{1}{2}$ box of gelatin in $\frac{3}{4}$ cup of cold water 10 minutes. Cook till slightly yellow, 2 cups of water, 1 cup of sugar, 1 inch of stick cinnamon, and rind of half a lemon. Pour it over gelatin. When gelatin is dissolved, add lemon juice and strain into wet mold. Chill. Unmold and serve with whipped cream.

Egg in a nest. Little Alice Stark ate this one day when she refused all other food, simply because it looked pretty.

1. Cut a round piece of bread and toast it.
2. Separate the white from the yolk of the egg and beat the white until it is light and dry with a pinch of salt.
3. Pile the beaten white on the slice of toast in the shape of a nest.
4. Slip the yolk into the hole in the middle carefully, without breaking it.
5. Set this all in a moderate oven until the yolk is slightly cooked and the beaten white browned a little. One little girl who made this and then wrote the story in her notebook, said, "until the peaks of the white are tipped with a little brownness."

Refreshing drinks for an invalid. When an acid is allowed by the doctor, a fruit-juice beverage is very acceptable. If the throat is parched and dry, some

other substance may be added, like gelatin or sea-moss farina, which also supply some nourishment. Boiling water may be poured upon well-dried toast, or upon a thoroughly cooked cereal, strained and cooled, and served plain or flavored with fruit juice. Do not add sugar without the doctor's approval.



FIG. 165. — Feeling better.

Flowers in the sickroom. When our sick friend is recovering, we may cheer her with a few flowers or a plant. Be careful, though, that they have not a strong scent. When we are well we enjoy fragrant flowers, but it is best not to have them in the sickroom. When the patient is suffering from a catarrhal trouble, like a

severe cold in the head, or from a sensitive throat, do not permit flowers in the room.

The pupils of the Pleasant Valley School studied the care of sick people and what to do in case of accident for a much longer time than this chapter shows. Miss



FIG. 166. — Violets or hepaticas for a sick friend.

James placed on the bookshelf one or two simple books about nursing, and she encouraged the girls to take turns in carrying the nursing books home. We must always be careful not to undertake nursing unless we know what to do; but the little kindnesses suggested in this lesson every girl may be glad to practice at some time.



Courtesy of Camp Hanoum, Thetford, Vt.

FIG. 167. — The pupils of the Pleasant Valley school studied what to do in case of accident.

EXERCISES AND PROBLEMS

1. From your own experience with sickness, mention simple things to do for a sick person, not discussed in this lesson.
2. Why is it important to have fresh air in the sickroom?
3. In case clothing catches on fire do you know what to do at once?
4. Why should you not run out of doors if your hair or apron catches on fire?
5. Do you know what to do with a burn "until the doctor comes"?
6. Why should you not give pie or pork or boiled cabbage to a sick person?

LESSON 4

ANOTHER HELPER

Another helper is cleanliness. What can cleanliness do to help us in the battle of keeping well?

Have you discovered that it costs to keep clean? Mrs. Richards, whose picture is on page 89, and whose birthday we celebrate, has written a book on *The Cost of Cleanliness*. Some day you will wish to read it. It costs time and money and energy to keep clean, and people cannot be well unless they are clean. Jane has to think of this each day in her planning. You have learned (page 166) that baby must be kept clean if she is to grow and be strong and well and happy. You have learned about cleaning your house (page 96) and cleaning your body. Do you plan for this each day? The cisterns must be kept clean if we are to have pure water, and the cesspools must be cared for if we are to keep well. Milk and food of all kinds must be kept clean for the sake of health. Have you not learned that often many people are made ill because some are careless and forget to keep the barns and streams clean?

Cleanliness is one of the great laws of health — the cleanliness of our cities, our country places, our homes within and without, our food, the water we drink, the clothes we wear, as well as of our own bodies. So many things to keep clean, because dirt is one of the causes of disease and the little germs thrive in dirt (page 99).

What thought do you give to this each day in your planning? Jane says she cleans her body every morning with a sponge bath, and twice a week she has a tub bath, because there is enough hot water on those days. She remembers to clean her teeth, night and morning, and sometimes after meals. Every Sunday she puts on clean clothes, and in the middle of the week clean underwear and stockings. Why does Jane change more often the garments which come in contact with her skin? Jane keeps her skin clean, and her teeth and hands and finger nails too; then she clothes her body with clean clothes.



Courtesy of Dentacura Co., Newark, N. J.

Every morning Jane helps to clean the house. She dusts her room and mother's, with a damp cloth. Why is a damp one better? She also dusts the wood floor with the oil mop and on Saturdays helps with the other cleaning. Do you think it is necessary to keep the houses in which we live clean as well as our bodies? Is your school clean? Is your church? It is safer to live in a house and a neighborhood which is clean than in a place where rubbish is thrown in the roads or gutters.

FIG. 168. — Do you remember to do this at least twice every day?

Do you think it is well to cultivate habits of cleanliness? The air in cities is not as clean and pure as in the country. Are you thankful for pure air? Are you drinking pure water and eating clean food? Are you living in a clean house with a clean yard? Are you going to a clean school? Are your neighbors clean people? Are the barns and cows near you clean? Are the milkers clean? If not, it is unfair to your far-off neighbors who live in large cities and buy the milk. Perhaps you have a society in your town which is



FIG. 169. — This is clean-up day. Do you have it in your town?

for the purpose of making people keep clean. Such a club is of great benefit and will aim to keep its community well and free from public nuisances. Such a society will help to save lives. Have you organized one? The Girls' League of Pleasant Valley, as well as the Boy Scouts, is doing all it can to keep the town clean and free from nuisances caused by dirty people.

Clean thoughts are necessary, too. Clean habits each day with clean thoughts help to keep us well. Have you ever stopped to think if your thoughts were clean? Are you thinking about the right things?

Sometimes people are unhappy because they are thinking in a wrong way. This is very important if one is to keep well: To learn right habits of thinking.

Have you ever been jealous? Jane was one day because Marjorie had a new hat. Do you think that was a good way of thinking? Jane became upset about it and fretted so that she became ill that afternoon and had to go to bed. She missed a party that night and a game of tennis in the afternoon. Do you think it paid her to have jealous thoughts?

Have you ever been angry? Anger can upset one and cause headaches and indigestion. One should be careful about how one is thinking. If one is cheerful and kind and happy at meals and there is good bright conversation, one's meals digest more easily. When one goes to the table in anger, all kinds of serious troubles are apt to follow.

Have you ever been very sad? Have you noticed people who were? See how dull their faces look; notice how they sigh. Do you know that these feelings of jealousy, anger, sorrow, fear are all capable of producing diseases in our body? Do you know why?



FIG. 170. — Anger has a bad effect on the whole body.

It is because these feelings affect the little nerves all over the body which regulate the supply of blood. Sometimes



FIG. 171. — Sadness affects our health and makes our friends sad also.

the blood vessels are enlarged, as in anger ; sometimes the blood is driven from the face and the skin is white and cold, as in fear. All these conditions are not normal and affect health. Do you wish to have your body poisoned by wrong thoughts, and your health impaired ?

Do you notice what a difference it makes in your actions when you are thinking happy thoughts? The whole body feels the effect ; the digestive juices flow more easily, and the

food is easily digested. A happy person moves about freely, is cheerful, and accomplishes work quickly and easily ; the happiness shows in every motion. The body is benefited because it is working freely in a normal way and all the tiny nerves are permitted to do their work. They permit the blood to flow freely and to go pounding through our bodies, making our hearts beat faster, and bringing nourishment to all the body.

Don't you feel glad and ready to laugh when you are happy? Laughing is a help, too, in keeping well. It acts like a tonic on the whole system.

So you see that happy thoughts, pleasant things, help our bodies to do better work and bring health; while anger, fear, sorrow, jealousy have a very bad effect. Which kind of thinking are you doing? Jane says sometimes she cannot help having angry thoughts, but she is learning to control her thoughts. This is a great thing to learn if one is to be clean in thought as well as in body. Are you trying?

So we have learned that there are many things for us to think about each day in planning to live happy, helpful, efficient lives. A time for sleep with plenty of good air, some time for work, time for pleasure each day, exercise in the sunshine if possible, cleanliness, good food, good water, the right clothing, and happy

thoughts. Miss James says it is most important to make a plan each day; that is, to think about these necessary things. Some of them become habits and we do not have to think all the time; but the necessary thing to remember is that one cannot take all one's exercise or sleep or fun or food at the end of a



FIG. 172. — Laughing is a good tonic. Happiness helps to keep one well.

week, but a plan must be made every day in order to get in all the necessary things for health. Are you planning for these in your day? You must if you wish to keep well.

Jane says she has thought of something else to add to her plans. She says she always feels happier when she has done something for some one else each day. In other words, when she has given something. It may be a kind act, a thoughtful letter, or a bunch of flowers picked on the way to school and left for one who is ill. Perhaps it is a little money given for a good cause. Are you planning your life so as to have something to give? If not, you are missing half of the joy of life. Many people plan their incomes so as always to have something to give. Would you like to hear about how such people plan? We shall learn in the next lesson. Miss James has a plan. It does not matter how small one's income is, one can plan to give something.

EXERCISES AND PROBLEMS

1. Why is cleanliness so expensive?
2. What is being done by your town to keep clean? Is there a "clean-up" day?
3. How are you planning for personal cleanliness each day? Why is this important?
4. What do we mean by clean thoughts? How do anger or jealousy affect our bodies?
5. What did Jane discover was a very important plan for happiness? How do you think she put it in operation?

LESSON 5

THE WELL-PLANNED BUDGET HELPS, TOO

Miss James says she keeps a budget. Do you know what that means?

Miss James says a budget is a plan for spending money. She says she does not always follow the plan exactly, but it is a great help to have it. Do you remember that when you made your petticoat the pattern was a great help; but you changed it a little to make it fit you, and Jane altered it slightly in another way to make it fit her. It is just so with a budget; it can be adapted to one's life and income. Miss James has a story to tell about a little city boy who had a budget. His mother and father gave him all the necessary food and clothing, and his Aunt Mary gave him 25 cents each week, for which he was in turn to have a plan for spending. Would you like to hear about his plan? Aunt Mary said he was to divide his 25 cents each week in this way:

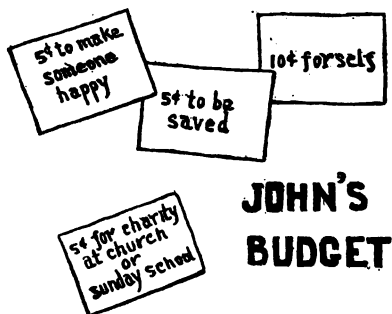


FIG. 173. — John divided his money and kept it in several envelopes.

Five cents was to be given to some charity at the church he attended or at Sunday School;

Five cents to make some one happy each week;

Five cents to be saved to be put in the bank later, and ten cents for himself, to spend any way he wished.

Would you like to know how John did it? Sometimes he saved his ten cents for himself, until he had thirty cents and then bought a ball or something he wanted very much. Sometimes he spent it for soda water. Aunt Mary said he might spend it any way he

wished, and he did. With the five cents to make some one happy, he had much pleasure. One day he surprised his mother when she was ill by bringing her a rose. In cities one has to buy flowers from a florist shop. Country children have so many things which city boys and girls cannot enjoy. Was that not a lovely thing to do? Another week he bought some candy for two little boys who were looking at some in a store window. Do you not think he was happy in giving so much pleasure? Twice each year he went with Aunt Mary and deposited the five cents saved each week, in the Savings Bank. Aunt Mary also gives him some birthday money to save. It is a useful thing to have some money put aside in this way. We hear about saving for a rainy day. Do you understand what that means? John called this plan of Aunt Mary's a game. Do you know that

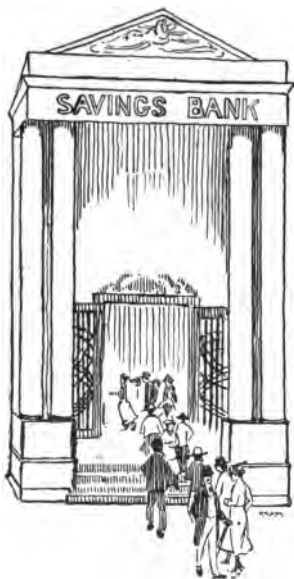


FIG. 174. — It is wise to save part of one's income.

FIG. 174. — It is wise to save part of one's income.

many older people plan a way of spending their money? It is not exactly a game, for much depends on the right way of spending. Sometimes mothers and fathers plan together in this way. It brings much happiness to have a plan and to know if one's money is being spent wisely, and to the greatest advantage. We learned that women should learn the spending business. Mothers and fathers together should plan to learn how to spend wisely. Would you like to know about Miss James' plan? Miss James says that her money last year, before she lived at the Ellen H. Richards House, was spent for these things; but until she made a budget, she did not know how much was spent for each. Look at all the items in this list. Did you know one person had to spend for so many things?

For :

1. Food. Board at Mrs. Andrews'
2. Rent. Room at Mrs. Stark's.
3. Clothes
4. Laundry
5. Railroad fare. Trip to State Teachers' Meeting and summer vacation
6. Books. To help in her school work
7. Candy or entertainment
8. Saved. Put in bank and life insurance
9. Charity and church
10. Presents. To give pleasure — flowers, books, birthday and Christmas cards, and gifts
11. Dentist or doctor
12. Incidentals, postage, etc.

Do you think this list is at all like John's list of things for which he spent his income? No, Miss James has to buy clothes and to pay for her room and board and other things which John did not have to pay for. Do you see the difference? In what ways are the things for which money was spent the same? The little boy had a division of his 25 cents, $\frac{1}{5}$ for saving, $\frac{1}{5}$ for charity, $\frac{1}{5}$ for making some one happy, $\frac{2}{5}$ for himself. What percentage is $\frac{1}{5}$ of 25 cents? $\frac{2}{5}$? I wonder what Miss James' division is! She had to study the right way to divide. There are ways of dividing which bring one happiness, and there are other ways which bring sorrow. Miss James had a friend, a teacher, who spent all her money for new hats and clothes. She didn't spend any on keeping up with her school work and learning, by attending Teachers' Meetings. By and by she lost her position. Do you think her plan for spending was a wise one? Have you ever heard of a father who spent most of his money for drink and tobacco? What do you suppose happened to that family when there was no money for clothes or food or good times? Was that a good plan?

Mrs. Ellen H. Richards, about whom we have studied, wrote another book called *The Art of Right Living*. Miss James studied this and also the book on *The Cost of Living*. Mrs. Richards gives some very good plans or budgets. Miss James has studied them and has divided her income so as to get the greatest

pleasure and good from it. Mrs. Richards says that money should be so divided by a family of mother and father and children that there is some money for all of these things; because money should be available for all of these things if one is to live efficiently and well.

Food

Clothes

Rent, or Housing

Light, Heat, Wages (called expenses for operating the house)

Miscellaneous

Books, Education

Church, Charity

Savings, Life Insurance

Doctor, Dentist

Travel, Pleasure

Do you think Miss James included all of these in spending her income? Miss James says the trouble is that very often people spend too large a percentage for one thing and then have nothing left for fun or for giving. Is that wise, do you think? In Mrs. Richards' book she has made a plan which should help us to spend wisely. Some day you may have to plan to spend for a family. It is not easy when one's in-



FIG. 175. — Some lives are like vessels at sea without a chart.

come is uncertain, but even then one should try to make some kind of a plan or sailing chart. Do you know that vessels are lost at sea if there is no sailing chart or plan, and there is danger of shipwreck on rocks or shoals? Sometimes the lives of families are wrecked because there is no plan for living, — no chart to sail by.

This is Mrs. Richards' plan for spending. Many other people have worked this out too, and agree with Mrs. Richards that this is a wise division. If a family of father and mother and three children have an income each year of \$1000, this is how Mrs. Richards would divide it :

Food	30 % or \$300 per year
Rent	20 or 200 per year
Clothes	15 or 150 per year
Operating expenses	10 or 100 per year
Miscellaneous	25 or 250 per year

This division of 30 per cent for food, 20 per cent for rent, 15 per cent for clothes, 10 per cent for operating expenses, 25 per cent for miscellaneous things is simply a sailing chart. Sometimes one must change one's plan — as we said, one must change the pattern — so as to spend different percentages for these principal items.

Perhaps you can begin now to keep an expense account. What headings will you keep? Here is a plan which may help you in keeping yours :

Miss James used these same forms for her monthly and yearly accounts, but her headings for the columns were different. Why? Room, Board, Clothes and Laundry, Gifts, Traveling, Saved, Church and Charity, Dentist and Doctor, Books and Magazines, Incidentals. The column headings differ with each person's requirements. The important reason for keeping accounts is that one may know where to reduce one's expenses and to be sure one is including all the things one needs for happiness. If not, the plan is a poor one, unless there is an exceptionally good reason for so doing.

EXERCISES

1. If you had \$1 per month for spending money, how would you plan?
2. What are the principal things for which one must spend money? What are the things one should really plan to include in one's budget, in order to plan for happiness and efficiency?
3. Begin to keep an expense account. Make a good plan.

LESSON 6

WORK HELPS TO KEEP ONE WELL AND HAPPY

Do you know that work helps to keep one well and happy?

What plans have you made? The Pleasant Valley girls have discussed this with Miss James.

What is your plan? Do you remember our talk about work when we discussed plans for dividing the 24 hours of each day? By this time all have had a chance to try some plan. Do you not feel happier

when you know you have accomplished a good piece of work? So all our lives long we are happier with some work to do, some life interest. Mothers have their homes, and often girls help there until they are married. Do you not think it is important, then, for all girls to learn how to be good home makers, the kind who will have joy and interest in the home-making work because they know how, and who will be able to spend wisely and enjoy living because they know how to keep well? Sometimes girls who stay at home would like to earn some money while helping at home. Have you ever thought what you could do in your town to earn a little for spending money, while you are living at home and do not have the expense of room and board while helping mother and father? There are many things, some small, taking very little time, and others most of one's time. The Pleasant Valley girls made a list of possible opportunities in their neighborhood; perhaps your teacher will help you to make such a list.

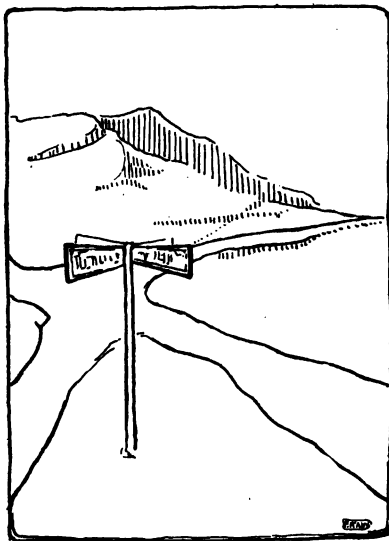


FIG. 176. — Are you beginning to think about the path you will choose?

Sometimes girls wish to leave home and go away to study at a business school, a normal school, or other institutions which prepare one to earn a living. Some girls do not like home duties as well as others and will be happier doing some other line of work. Have you ever thought about what you would like to do? Many of the girls who go away and prepare for work other than home making decide after a few years to marry and become home makers, so it is important that they too should know about how to live wisely and to make a home. Some girls do not marry, and then they are happier because they can earn money and help in the world; and very often they contribute very valuable service. Is it not wise to prepare oneself to earn? It may not be absolutely necessary now, but the time may come when you will wish you had learned how to do something well.

For the girl who can go away to study. Here is a list which Miss James made for the Pleasant Valley girls of some of the things girls often study when they go away from home to prepare to earn their living. This is, of course, after the high school course is finished, which is the foundation every girl should have who wishes to accomplish the best work. Sometimes some of these schools admit girls who have not finished high school, when the standards are not so high, but the positions later are not apt to be so good. Here are some of the places girls go to in order to prepare for life work:

I. To Normal Schools

To learn to be teacher

- (a) In elementary schools — district or other schools
- (b) Of special subjects — household arts, music, physical training, art, kindergartening



FIG. 177. — Will you become a teacher?

II. To Hospitals

To learn to be

- (a) Hospital nurse or
- (b) Trained baby nurse and mother's helper



FIG. 178. — Some girls will wish to become trained nurses after their High School work is finished.

III. To Business Schools

To learn to be

- | | |
|---------------------------------|----------------------|
| (a) Stenographer and typewriter | (c) Office assistant |
| (b) Bookkeeper | (d) Secretary |



FIG. 179. — Will you study for business?

IV. To Music School

- (a) To prepare for concert singing or playing
- (b) To prepare to teach music
- (c) For one's pleasure at home

V. To Art Schools

To learn to be

- | | |
|--------------------------------|-----------------------|
| (a) Designers of fabrics, etc. | (c) Costume designers |
| (b) Illustrators | (d) House decorators |



FIG. 180. — You may perhaps study to be a designer.

VI. To Trade School, or Vocational School

To learn to be

- | | |
|----------------|-----------------|
| (a) Seamstress | (g) Caterers |
| (b) Dressmaker | (h) Housekeeper |
| (c) Milliner | (i) Saleswoman |
| (d) Cook | (j) Nursemaid |
| (e) Laundress | (k) Lady's maid |
| (f) Waitress | |



FIG. 181. — Some girls will be dressmakers.

VII. To Agricultural School

To prepare for

- | | |
|---------------------|-------------------------|
| (a) Gardening | (d) Live stock raising |
| (b) Fruit raising | (e) Landscape gardening |
| (c) Poultry raising | (f) Tree nurseryman |

VIII. To College

To become

- (a) Teachers in high schools and colleges
- (b) Journalists and writers
- (c) Ministers

- (d) Lawyers
- (e) Physicians
- (f) Administrative work
 - 1. Head of institutions as dormitory director
 - 2. Visiting housekeeper
 - 3. Manager of school lunch rooms, tea rooms, restaurants, laundries
- (g) Research work, bacteriologist or chemist
- (h) Business women
 - 1. Real estate, insurance, banking
 - 2. Department store work, manager of departments
 - 3. Social secretaries
- (i) Librarians



FIG. 182. — Some college women become physicians.

IX. To School or College preparing for Social Work

To become

- (a) District visitor
- (b) Social worker with the poor
- (c) Religious worker or missionary

X. To Schools teaching Home-making

To study to be a *home-maker* in order to know about care of family, babies, sick, old people; proper food for family and how to prepare and serve it; proper clothing for family, how to purchase it wisely, care for it, and make it; proper surroundings for the family group; how to make home pretty, attractive, restful; how to run it smoothly and to care for its furnishings; how to be a real wife and mother.

For the girl who must stay at home. Sometimes girls cannot go away to prepare to earn their living, but must stay at home. Look at the list below and see if there is anything you can do in your neighborhood to earn money while helping at home. You can prepare for some of these by reading, going to school as long as you can, asking your teacher to suggest books for you to buy or for the librarian to get for your town library, and learning all that Miss James taught the Pleasant Valley girls in this textbook. Then, too, girls learn much at home. Keep your eyes open and be ready to see things and to do all you can to learn. If there is an earnest desire and determination to do, the way will open. Ask your teacher, minister, librarian, the lecturer from the State Agricultural College, the United States Departments at Washington, and do not be afraid to write to them and others for suggestions. Sometimes correspondence courses are helpful. Effort must be made in order to achieve. One will never accomplish anything without trying.

Here are a few of the things girls are doing in some parts of our country. This list may suggest to you

something you can do while staying at home. Perhaps you may be able to earn enough to go away for a while to study or to buy equipment, and so to enlarge your work at home.

I. Animal Husbandry

1. Raising chickens, pigeons, ducks, geese for feathers and for sale
2. Raising chickens, for eggs
3. Raising dogs, angora cats, pigs, calves, sheep
4. Raising bees



Courtesy of Farmer's Wife Journal.

FIG. 183. — This North Dakota girl won the prize in the North Dakota Pork Contest. These hogs in half a year returned \$104.68 above their food cost, or a return of 54½ cents a day. Why shouldn't girls raise pigs?

II. Gardening

1. Raising flowers for sale to summer boarders
2. Raising tomatoes, cabbage, other plants in hot beds
3. Raising strawberries, blackberries, raspberries
4. Raising apples, cherries; taking care of some trees on father's farm
5. Raising vegetables, garden truck, peanuts

III. Personal Service (out)

Working by hour, day, or week

1. Waiting on table at hotel
2. Expert waitress for parties
3. Caring for children during parents' absence
4. Caring for sick or amusing convalescents
5. Going shopping for those unable to leave home
6. Being a companion to old people or reading to old or blind
7. Assisting neighbors with cleaning, cooking, laundering, etc.
8. Sewing
9. Catering for parties

IV. Personal Service (at home)

1. Taking summer boarders, or regular boarders
2. Taking children to board
3. Laundering fine shirtwaists for summer boarders
General laundry work
Laundering baby clothes and fine lingerie
4. Preparing gift packages for Christmas and birthdays, of country products tied up daintily, for sale to exchanges and other places, to be sent by parcel post
5. Preserving jellies, fruits, marmalades, vegetables
Canning pickles, relishes, etc.
6. Baking cake, cookies, bread, rolls
7. Candy making
8. Maple sugar and sirup
9. Cheese making — cottage cheese attractively done up
10. Butter making — fancy prints, buttermilk, cream
11. Catering. For teas, suppers, picnics, church parties
12. Salad dressings, as a specialty
13. Soap making



Courtesy of Miss Helen Gray, St. Johnsbury, Vt.

FIG. 184. — This girl is making a great deal of money at home. Do you know how to make candy well?

14. Preparing for automobile parties
 - Lunch counter
 - Tearoom
 - Lunch boxes
 - Dinner boxes
15. Drying fruits, peeled or plain; drying sage, thyme
16. Making baskets, drying balsam, making balsam pillows, cornhusk mats
17. Weaving rugs and braiding mats
18. Sewing and dressmaking
19. Millinery
20. Making specialty of children's clothes or shirt waists or house dresses or other specialties much used in neighborhood
21. Repairing and remodeling clothes
22. Knitting or crocheting to order, or for stores

23. Shampooing and hairdressing, at home or shop
24. Starting library at one's home, small fee, begin with few books
25. Curing hams and bacons
26. Raising and gathering nuts
27. Starting canning club
28. Preparing Sunday dinners to be delivered
29. Peanut raising

V. Using automobile or horses

1. Transportation of summer boarders
2. Carrying children to school
3. Auto parties

Things necessary for success. Perhaps in this list you will find something which you can do. Several things are necessary for success. One must be prompt and businesslike. It pays to have a specialty—a good sunshine cake; some particular kind of nut bread, which can be sent by parcel post or sold in one's own town; some particular kind of knitted wash cloths or something well done which people want. Then one must advertise; it also pays. Tell people about your specialty, put a notice in the Pleasant Valley News, send out some notices printed or typewritten or even written. See if you can contract with the village storekeeper for your products for putting them on sale for commission. Write to Women's Exchanges in any large city near, to find out what arrangement can be made. Always have an attractive package for your products. It helps to sell goods. Perhaps acquaintance with summer boarders may lead

to delivery of your products away from home and a business with people you do not know. The secret is having something attractive which people wish.

After all that has been written it is not necessary to speak of the immaculate cleanliness of the worker and the products. Advertise its cleanliness. People want clean things to eat made under clean conditions. Learn to do some one thing well.

EXERCISES AND PROBLEMS

1. If you know that you must soon prepare to earn your own living, talk with some of your friends, teachers, or minister about it. It helps one to talk things over.
2. Think of some ways by which you can earn some money at home.
3. Find out all you can from books at the library and from suggestions made by your teacher, of the opportunities for work or vocations open to girls.

LESSON 7

ONE MORE THOUGHT. WHAT IS YOUR SHARE?

Miss James says there is one lesson more she wishes to give about planning to live happy lives. Would you like to know too?

The Secret. Miss James told the Pleasant Valley girls that no life is really happy which is lived selfishly. No person who is living and earning and working for her own gratification is a really helpful or happy person. It is only through giving of ourselves, our time, our money, and our lives, that this real happiness is attainable. *This is the secret.* What is to be your

share of work in the world? How is your life to count towards helping human need? The girls and boys of Pleasant Valley are making a study of this. Can you classify the people you have learned about in history, great men and great women who have made their lives count? Think of the great —

Physicians
Lawyers
Preachers
Statesmen
Explorers
Teachers

Engineers
Inventors
Musicians
Artists
Writers

Can you name some and tell their contributions to human need? Think of some you know who are busy to-day in our country, each one using his great gift. "Great gifts bring great responsibilities." What is your great gift? Perhaps it is a small one, but it too can count.

Can you recall some women you have studied about? What did Mrs. Richards contribute in her work in the world? How did she do this? Think of some of the women living to-day who are giving of their gifts.

What is your share? This giving brings real happiness to the giver. Search and see in what ways you can make your life count for your country. There are always ways to reach out, either alone or with others in societies, clubs, and organizations. What is to be your share? Have you made a plan for this?

EXERCISES AND PROBLEMS

1. What clubs do you belong to? How are they helping you and others?
2. Have you decided in what way you would like to make your life count?

REVIEW PROBLEMS

- I. Study the life of some well-known man or woman. Try to discover in what ways that life has counted for helpfulness in the world.
- II. What plans for happiness, of those suggested in this chapter, can you put in operation at once?
- III. What work do you think you will choose? Are you beginning to prepare yourself for it? This is very necessary.

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